

INSIDE DOPE

Learn to live and laugh—
Thus delay your epitaph

By **GEORGE F. TAUBENECK**

Stories of the Week
Gags of the Week
Philosophy of the Week
Believe It or Not
Everyday Living
Verse of the Week
Let's Pause and Consider
Stimulant

Stories of the Week

"Are you free tonight?"
"No. But I promise not to be expensive."

"Yaas," bored Mrs. Sweet, upon returning from a Mediterranean cruise, "in Egypt we saw relics which were covered with hieroglyphics."

One neighbor was listening.

"Gracious," she interrupted, "I hope none of 'em got on you."

"Take these vitamin pills for at least six months," advised Dr. Octoquarian, "and you'll become much younger."

Doc Octoquarian's elderly patient quavered:

"Will I lose my pension?"

High school exam question: What are the three most common causes of fires?

Best answer, for our money:

"Men, women, and children."

Gags of the Week

Marriage gives single men a new lease on life at double the rent.

He who laughs last nowadays is considered slow-witted.

Economy is spending your money without getting any fun out of it.

Chivalry is man's inclination to defend a woman's honor against every man but himself.

Do you worry about yourself? In 1934 you were running short of money. Remember? After 20 years, what are you running short of? *Answer:* Years. — HARVEY CAMPBELL.

Philosophy of the Week

Be not afraid of life. Believe that life is worth living. Your belief will create that fact for you. — WILLIAM JAMES.

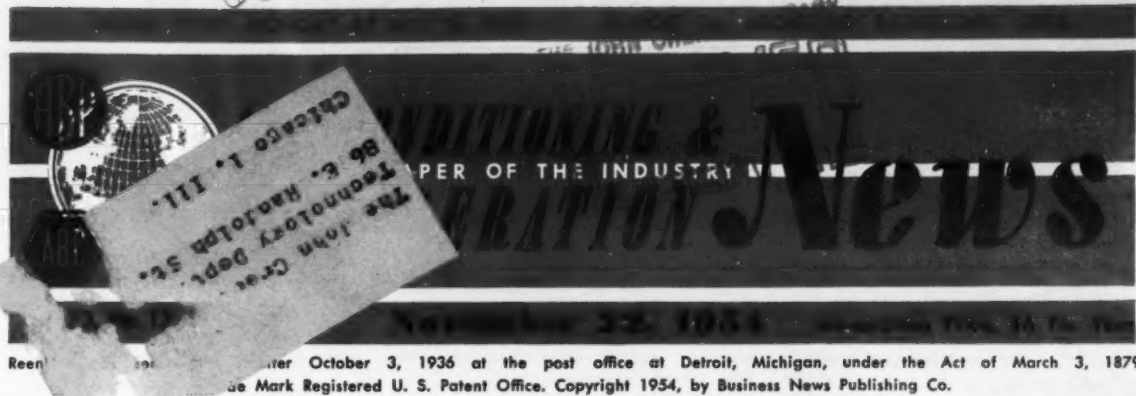
Despite its size and military might, the Soviet Union is a mortally sick nation. The cancer of fear gnaws at the vitals of its ruling classes. They live in fear of one another, of denunciations, of swiftly shifting party lines, of superiors. But most of all, they fear the sullen, muttering masses, whom, thru sheer necessity, they must dominate and terrorize. — EUGENE LYONS.

To speak and write what I think has lost me friends and customers; but I'm still in business. — WILLIAM FEATHER.

Believe It or Not

Col. J. H. Williams claims he can call his dogs with "thought waves." All he has to do is concentrate on a particular canine, and wish he'd come back from wherever he may be. In a short time the dog appears. It never fails, avers the colonel.

"Dope" concurs with this sub-scientific finding. Most dogs are mentally in touch with their masters, we believe. That is why dogs which are broadcast as lost unerringly return home from re-
(Concluded on Page 6, Col. 3)



Perfex Entering Refrigeration, Air Conditioning Field

MILWAUKEE — Perfex Corp. here has announced its entrance into the field of refrigeration and air conditioning.

Through the newly-formed Refrigeration Div., headed by W. K. Watts as manager, Perfex will manufacture coils for room and residential air conditioning units, self-contained equipment, automotive cooling units, chilled water systems, hot water heating, portable refrigeration and air conditioning units.

"The Refrigeration Div. will offer a complete range of condenser and evaporator coils, tailored to fit manufacturers' requirements," the company said. "Fabricated to specification, capacity ratings range from 1/3 to 3 hp. for room and automotive air conditioners, and 2 to 10 tons for residential and self-contained applications."

"Perfex has been a leader in the
(Concluded on Page 4, Col. 3)

G-E Room Cooler Line Features Unit Which Fits Flush with Wall

LOUISVILLE, Ky.—A new air conditioning unit which can be adjusted to fit flush with the inside wall is featured in General Electric's new 1955 line of room air conditioners.

Units which provide a reportedly unique combination of reverse cycle and resistance-type heating are in the line.

The company said the line also features cabinets in a new modern blond finish, improved appearance in both interior and exterior cabinets, and extremely quiet operation.

The new flush mount construction, known as "Drape-Line Design," is available in the R32M, R52M, and R72M models, including 1/2 hp., 115 volt, and 3/4 hp., 115,
(Concluded on Back Page, Col. 3)

McGraw Purchase Of Lonergan Needs Only Stockholder OK

CHICAGO — McGraw Electric Co. will acquire the assets and business of Lonergan Mfg. Co., Albion, Mich., if the transaction is approved by Lonergan stockholders at a meeting in December, McGraw has revealed.

Disclosing that McGraw Electric has concluded negotiations for the acquisition, Max McGraw, president, said Lonergan would be operated as an autonomous division at Albion under its present management. He added that there would be no change in the positions of executives and other employees.

Lonergan manufactures air conditioning equipment, dehumidifiers, and space heaters in a 220,000-sq. ft. plant. The company concluded its fiscal year Sept. 30 with net sales of \$9 million, according to S. J. Lonergan, president and founder of the 20-year-old firm.

RACCA Convenes Dec. 2 and 3 In Miami Beach

CLEVELAND — A labor union official and a member of the Federal Trade Commission will be featured speakers at the two-day national meeting of the Refrigeration and Air Conditioning Contractors Association to be held in the Hotel diLido in Miami Beach, Fla. on Dec. 2 and 3.

Peter T. Schoemann, assistant to Martin P. Durkin, president of the United Association of Journeymen and Apprentices of the Plumbing and Pipefitters Industry, will give a progress report on the joint union-contractor sponsored apprentice training program. An open forum and panel discussion between three members each of the RACCA and the United Association joint committee will follow his talk.

Robert Secrest of the Federal Trade Commission, will address the contractors on the "Purpose, Procedure, and Advantages of Establishing 'Rules of Practice' for an Industry." His talk will be followed by a discussion of the status and future activities of complaint against major dairies.

Another program feature will be a sales clinic by three members of the Miami Sales Executives Club to include open discussion on the phases of organization and supervision of contracting sales.
(Concluded on Page 4, Col. 1)

Refrigerator Scattered All Over 1960 Kitchen

WILLIAMSBURG, Va. — What are appliance designers cooking up for the kitchen of the future?

Some idea of what they are working on was given at the recent convention of the Society of Industrial Designers here.

"By 1960, big appliances like ranges and refrigerators won't come in the single, large units that we know today," Dave Chapman of Dave Chapman Industrial Design, predicted.

"Instead you'll have cooking and refrigeration devices in several places around the kitchen. For ex-
(Concluded on Back Page, Col. 2)

Rosy Glow Lights Appliance Future

McKibbin Sees 428 Million Appliances Sold In 5 Years

ATLANTIC CITY — "If our industry really solves the adequate wiring problem . . . if we appliance manufacturers sell and sell hard . . . if we keep our designs and engineering developments on a dynamic basis . . . we can sell 428,000,000 appliances in the next five years."

J. M. McKibbin, vice president, consumer products, Westinghouse Electric Corp., made this prediction in a talk on "The Future of the Appliance Industry" at the recent annual dinner here of the National Electrical Manufacturers Association.
(Concluded on Page 17, Col. 1)

Larkin Heads New Seeger Div. as Firm Expands

EVANSVILLE, Ind.—Lincoln M. Larkin has been appointed manager of the newly-established Industrial Sales Div. of the Seeger Refrigerator Co., and Benjamin W. Gettys has been named assistant manager, it is announced by John W. Krueger, vice president of the Evansville Div. of Seeger.

The Industrial Sales Div. was formed for the purpose of marketing Seeger products to the refrigeration industry generally. The company has been building complete mechanical refrigeration products for more than 25 years, but has limited its sales until the present to a few selected customers on a contract basis. Sears Roebuck & Co. has been the major Seeger customer.

Seeger is nearing completion on a \$2 1/4 million expansion program that is doubling the capacity of its refrigeration compressor plant, Krueger says, and this will enable it to supply compressors to the domestic refrigeration field.

The company is planning to offer an improved design of its rotary compressor in sizes from 1/8 hp. to
(Concluded on Page 4, Col. 5)

Reader's Digest Says:

Food Plan Good, But Keep Your Eye on Salesman

PLEASANTVILLE, N. Y.—"Are freezer food plans any good?" asks the *Reader's Digest* in its November issue.

The answer given by Kenneth Robb, staff writer, is a qualified "yes." But he advises consumers to "proceed with caution."

"Anyone who thinks about joining a plan should be on guard," he warns in his article. "Avoid bold offers that promise 'wholesale' prices, or freezer or food 'absolutely free.' Have the plan operator put you in touch with some of his customers. If 60% regularly reorder, he'll probably stay in business."

Such caution is necessary, he says, because "high pressure tactics are still prevalent. The fast-buck boys see little profit in selling food at near cost. They go
(Concluded on Page 4, Col. 4)

New NEMA Section Heads Agree 1955 Should Be One of Best

ATLANTIC CITY—1955 should be one of the best years ever enjoyed by the electric appliance industry.

Members representing the various sections of the Major Appliance Div. of the National Electrical Manufacturers Association so agreed at the division's annual fall meeting held at the Haddon Hall hotel here recently.

D. A. Packard, general sales manager, Kelvinator Div., American Motors Corp., was elected chairman and W. M. Timmerman, general manager, Household Refrigerator Dept., General Electric
(Concluded on Page 4, Col. 2)

ASRE To Meet In Philadelphia Nov. 28 to Dec. 1

Group Marks 50th Year, To Inaugurate Educational Engineering Conference

NEW YORK CITY—Four technical sessions, five conferences, seven forums, and a symposium—all in three days—crowd the technical program planned for the 50th anniversary convention of the American Society of Refrigerating Engineers.

The group will gather in the Hotel Benjamin Franklin in Philadelphia Nov. 28 to Dec. 1 to celebrate the 50th birthday of the society after voting in a special meeting Nov. 27 on a proposed change in its name to the American Society of Refrigerating and Air Conditioning Engineers.

After a reception with informal entertainment on Sunday, Nov. 28, the engineers will get down to some hard listening and note taking on Monday morning. With the exception of Monday afternoon, which will be devoted solely to the first technical session, at least two meetings will be going on simultaneously at all times. This will hit a peak on Tuesday afternoon when the seven forums and a research program development symposium will be in session at the same time.

An innovation this year is the Educational Engineering Conference that will open the program on Monday morning. Representatives of schools as well as professional and industry engineers will discuss specialized versus generalized curricula in engineering colleges. Open discussion from the floor will be invited.

At the same time, a water conservation conference will review manufacturers' problems and responsibilities in water usage, water treating chemicals and equipment, maintenance problems handled locally, and a warning on magic gadgets.

The annual domestic refrigerator engineering conference, slated for Tuesday morning, will concern
(Concluded on Back Page, Col. 1)

General Tire Preparing Offer for Motor Products

DETROIT—General Tire & Rubber Co., which has been interested in acquiring Motor Products Corp., (parent company of Deepfreeze) announced Nov. 16 that it has prepared an offer for exchange of stock.

The proposal would have Motor Products stockholders exchanging their common stock for new General Tire 5 1/2% cumulative preferred stock—at a ratio not specified. Motor Products has been selling at the 20 3/4 level.

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Punxsutawney Names Rickner To Head Sales Of Beverage-Air Div.

PUNXSUTAWNEY, Pa. — Herman L. Buffington, president of the Punxsutawney Co., has announced the addition of Chas. A. Rickner to the staff of the company's Beverage - Air Div.



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Rickner will have charge of sales and other related functions in order to allow Buffington more time for planning plant expansion, new product development, etc.

Expanding operations has made it necessary to increase personnel as well as plant facilities, it was pointed out.

Rickner has a background of more than 20 years in the refrigeration and air conditioning field. He entered the field in 1931 after majoring in thermodynamics at the University of Chicago. He was chief engineer of a consulting engineering company and was with the Kelvinator Div. of Nash-Kelvinator, G.M.C. Truck & Coach Div. of General Motors, and Servel, Inc., the company announcement indicated.

Heat-X, Inc. Is New Name Of Bush Mfg. Subsidiary

BREWSTER, N. Y. — The local concern formerly known as Heat-X-Changer Co., Inc. has announced a corporate name change. Henceforth the company will be known as Heat-X, Inc.

Heat-X was formed in 1945 by Cecil Boling, now president of Bush Mfg. Co., and in 1953 became a wholly-owned subsidiary of Bush.

The concern, manufacturer of specialized heat transfer products, recently expanded its line to include package chillers and is now developing other self-contained equipment.

Raytheon Hires Physician As Electrical Engineer

WALTHAM, Mass. — Hubert Sear, M.D., has joined Raytheon Mfg. Co. as an engineer in the medical products laboratory.

He will assist in the application and promotion of the "Micronaire" room air cleaner and the "Microtherm" diathermy equipment, and in designing new products for the medical field.

Dr. Sear's association with Raytheon furthers the electronics firm's plans to expand its designing, engineering, and production facilities in the specialized field of medical electronics products.

Conflicting Room Unit Rent Rulings Still Go Unchallenged

NEW YORK CITY — Conflicting court decisions that in effect permit some New York City area landlords to raise rents when tenants install window air conditioners and prevent other landlords from raising theirs under the same circumstances stand unchallenged, the New York Temporary State Housing Rent Commission reported.

John S. Wagner, director of public information for the commission, indicated that the commission had hoped that some landlord or tenant would appeal the decisions so that the conflict would be resolved. But after a full season in effect the conflict remains.

The situation arose when the Supreme Court, Appellate Term, 1st Department (Bronx and New York counties) decided in 1952 that a tenant did not need a landlord's permission to install an air conditioner that is entirely attached within the window line of the apartment with the exception of about 6 in. that protrudes beyond the window sill. Such a unit cannot be attached to or touch the outside of the building in any way.

Then late in 1953, the Supreme Court, Appellate Term, 2nd Department (Kings, Queens, Richmond, and Nassau counties), a court of co-equal jurisdiction, ruled that the intrusion of an air

conditioning unit beyond the building wall was a squatting on the landlord's property.

The conflicting rulings raised the question with the rent control commission of whether or not the landlord was entitled to a rent increase if an air conditioner were installed.

State Rent Administrator Joseph P. McGoldrick decided to follow the reasoning of the courts in both cases depending on where the apartment involved is located.

U. S. District Court Refuses To Recognize Niagara Blower Claim

LOS ANGELES — U. S. District Court Judge Ernest A. Tolin here has refused to recognize a claim made by Niagara Blower Co. that Refrigeration Engineering, Inc.'s use of desuperheat coils on its "Dri-Fan" evaporative condensers infringed a patent held by Niagara Blower.

The findings of the court sustained Refrigeration Engineering, Inc.'s right to sell, and the right of its customers to use desuperheat coils on "Dri-Fan" model condensers.

Text of decision follows:

"This case involves the question of validity of Claims 8 and 9 of Patent 21,917 granted to plaintiff on a claimed invention of Charles Deverall. The patent is a reissue patent, having been reissued under the provisions of Sec. 251 of the Patent Act of 1952.

"The Court does not agree with defendant's point that reissue as such was improper under the facts of this case; but as to the claimed invention itself, the Court is of the opinion that it is but an aggregation of old elements and does not rise to the dignity of invention.

"For this reason, judgment must be that the claims of the patent in issue are, and each of them is, invalid for want of invention. The aggregation does not constitute a patentable combination within the requirements of the law that there be invention as distinguished from mechanical skill. The Court finds that the aggregation has been commercially successful.

"Having determined that the reissue Letters Patent in issue are invalid and void as to Claims 8 and 9, there is no purpose in proceeding to the question of whether defendant's structure is like, or unlike, that manufactured by the plaintiff.

"Counsel for defendant may prepare findings of fact, conclusions of law and judgment which will be settled under Local Rule 7."

2 Worthington Machines To Cool Skyscraper

HARRISON, N. J. — In early 1955, two large Worthington centrifugal "Freon" refrigeration machines will take up occupancy of basement quarters in one of the world's most famous skyscrapers, the 77-story Chrysler building located at 405 Lexington Ave., New York City.

Their purpose—to supply cooling for the air conditioning of this second tallest office structure in the world.

The Chrysler building's height of 1,046 ft. is topped only by the 1,472 ft. of the 102-story Empire State building. It was built in 1928-29 at a cost of \$16,000,000. Its volume is 14,300,000 cu. ft. with more than a million square feet of floor space.

The observation tower is used for telecasting. The lower level of the building—the Arcade—houses many shops and services, and has entrance to subway lines and Grand Central Station. On the street floor are the Chrysler Motor Co.'s International Salon, Central Hanover Bank & Trust Co., Schrafft's restaurant, and shops.

According to Worthington officials, each of the two refrigeration machines to be installed in the Chrysler building will produce 1,100 tons of refrigeration when cooling 2,640 g.p.m. of water from 51° to 41° F., utilizing 3,300 g.p.m. of 88° F. condensing water, and operating on a closed circuit for utmost water conservation.

The compressor assembly for each machine will consist of two Worthington compressors driven in tandem by a 1,220-hp. turbine.

The contractor handling the air conditioning installation is Wolff & Murier, Inc., New York, through general contractor, Turner Construction Co., and Consulting Engineer W. R. Cosentini.



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WORTHINGTON



THE BEST FRANCHISE...THE MOST COMPLETE LINE

LA CROSSE

KUBE KING

Automatic ICE MACHINE

CRYSTAL CLEAN CYLINDRICAL KUBES
WITHOUT HOLES!

AVOID SERVICE HEADACHES

Removable stainless steel front panel, condensing unit, pulls out for quick servicing. No gadgets with modern Kube King engineering.

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Export Office: 80 Broad St., New York City. Cable: Eximport

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BEVERAGE COOLERS AND INSTANTANEOUS DRAFT BEER COOLERS.
(With Refrigerated Faucets)

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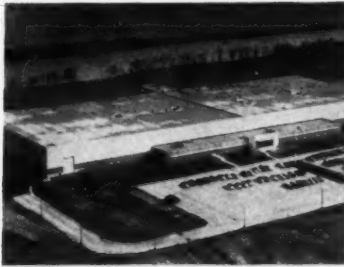
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THE BEST FRANCHISE...THE MOST COMPLETE LINE



Kube King, the leader in practical design, economical operation produces approx. 2,000 kubes every 24 hours. . . storage bin holds about 75 lbs. . . uses only 5 qts. of water per freezing cycle.



CRYSTAL CLEAN CYLINDRICAL KUBES WITHOUT HOLES!

WRITE TODAY

AVOID SERVICE HEADACHES

Removable stainless steel front panel, condensing unit, pulls out for quick servicing. No gadgets with modern Kube King engineering.

LA CROSSE COOLER CO.

Factory & Gen'l. Offices: 3000 Losey Blvd., La Crosse, Wis.

Export Office: 80 Broad St., New York City. Cable: Eximport

Gibson Gives Prices, Details on Freezers, Refrigerators, Room Conditioners, Ranges

GREENVILLE, Mich. — Gibson Refrigerator Co., here, has offered additional details and prices on its eight-model line of refrigerators, seven freezers, nine room air conditioners, and seven ranges.

A new type refrigerator, model G-1175, the "Market Master" is all refrigerator. The 15-cu. ft. automatic defrost model has no evaporator and is designed for families having a home freezer.

Model G-1195, the "Strat-a-Zone" has automatic defrost, a new "Freezer Locker" with 50 lbs. capacity located near the center of the unit, five door shelves equipped with a device to keep bottles from falling out.

Model G-1165 has full-width freezer at top of unit, 11-cu. ft. capacity, a full-width "Chill'r Locker" for quick chilling of beverages and salads.

All models have adjustable shelves, two "Swing'r Crisp'rs," butter keeper, "Swing'r" shelf, and bacon conditioner.

Model G-1055 with 10.33-cu. ft. capacity and model G-935 with 9.07 cu. ft. have full-width freezer, full-length door, rounded corners. Both models have three door shelves and Chill'r Lockers.

Three 7-cu. ft. models are available with right or left-hand doors. Models G-765 and G-725 have full-width freezers and two door shelves each. Model G-7 has a side mounted evaporator.

All refrigerators in the line are finished in "Cameo Cream" baked enamel. The 10 and 11-cu. ft. models have gold trimmed steel chrome shelves. All models have full-length doors and rounded corners inside for easy cleaning.

Prices follow for all models except G-7 for which no price was given. Prices include Federal Excise Tax and five-year protection plan.

Model No.	Suggested Retail List Price
G-725-R	\$199.95
G-725-L	199.95
G-765-R	239.95
G-765-L	239.95
G-935	229.95
G-1055	279.95
G-1165	349.95
G-1175	299.95
G-1195	399.95
G-1084	484.95

Freezer line is highlighted by upright model HFU-11, designed as a companion to the Market Master refrigerator. Four models ranging in size from 7 cu. ft. to 18 cu. ft. are uprights. Three chest-type models are available in 10, 14, and 20-cu. ft. sizes. Prices for chest-type are: HF-1092, \$384.95; HF-140, \$424.95; HF-200, \$529.95. Upright model HFU-180 is priced at \$549.95. Prices include Federal Excise Tax, five-year food protection plan, and five-year warranty.

New room air conditioners, designed to harmonize with modern or traditional decor, are flush mounted with draperies—flexible mounting brackets allow three position choice. Deluxe models have pushbutton controls and an ozone lamp.

Prices for the nine models follow:

Model No.	Suggested Retail List Price
GBC-3311	\$229.95
GAC-5011	319.95
GAC-7711	289.95
GAC-7721	289.95
GAH-7511	379.95
GAH-7611	379.95
GAH-7581	389.95
GAH-7521	389.95
GAH-1021	449.95

The 1955 range line has seven

models. Deluxe 40-in. ranges have deep-well cooker, two ovens (one with door window), and seven-speed pushbutton controls. The 30-in. models have single-width ovens, seven-speed controls. Deluxe model ER-205-D has pushbutton controls, "Easy-see" window in oven, and full-width drawer mounted on nylon rollers.

Suggested list prices are as follows:

Model No.	Suggested Retail List Price
ER-205-A4	\$
ER-205-LS	199.95
ER-205-LD	249.95
ER-205-LDG	259.95
ER-205-D	249.95
ER-205-F	329.95
ER-205-H	449.95

Fogel Reach-Ins Will Be Made In 3 Basic Sizes

PHILADELPHIA—Standardization of its reach-in line has been announced by Fogel Refrigerator Co. here.

Models soon to come off the production line will consist of three basic sizes, available in three exterior finishes. The basic sizes will be 27, 45, and 72 cu. ft.

The "W" series indicates a white baked enamel exterior with a polished "Alcoa" aluminum interior.

The "SA" series will be constructed of a stainless steel front, with a polished Alcoa aluminum top, sides, back, and bottom. The interior of the "SA" series will also be of polished Alcoa aluminum.

The "SS" series will be finished in stainless steel on the front, sides, and interior of the case. The top, back, and bottom will be made of polished Alcoa aluminum.

Seattle and Houston Contractor Groups Form RACCA Organization

CLEVELAND—Air conditioning and refrigeration contractors of Houston recently formed an RACCA of Houston, it has been announced by Ray Kromer, executive vice president of the Refrigeration & Air Conditioning Contractors Association.

Kromer also announced that the Refrigeration & Air Conditioning Contractors Association of Seattle has voted to affiliate with RACCA-National.

Kromer said membership of RACCA of Houston is composed of all contractors in the Houston area who are involved in air conditioning and refrigeration work.

"Two separate associations, both involved in refrigeration and air conditioning work, are functioning in the Houston area," he explained. "The Air Conditioning Contractors Association of Houston is com-

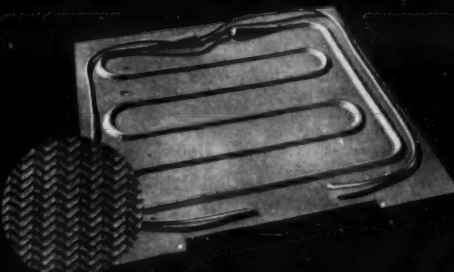
posed of members who deal exclusively in air conditioning. The Mechanical Contractors Association of Houston is composed of contractors, the majority of whom are involved in refrigeration and air conditioning work. RACCA of Houston is composed of membership from each of these associations.

"A joint training program was immediately established for refrigeration and air conditioning apprentices and journeymen. Arrangements have already been completed with the State Department of Education for training facilities, instructors, and text books."

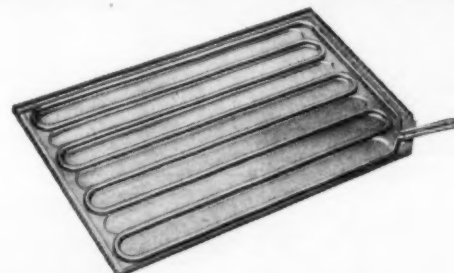
According to W. C. Stone of the W. E. Stone & Co., Inc., president of the Seattle association, this group has adopted the plans and program of RACCA.



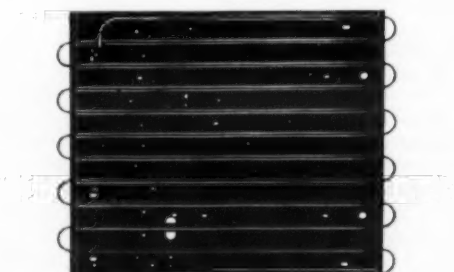
EVAPORATORS by Houdaille are steel plate-on-plate construction. No frost pinch. Fast freezing and fast defrost. Low cost. Exceptional over-all efficiency.



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CONDENSERS by Houdaille are the popular "natural draft" type, for cleanliness, neatness and higher efficiency.

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*Say "Hoo Dye"

HOUDAILLE-HERSHEY REFRIGERATION DIVISION





P. T. Schoemann



R. T. Secrest

RACCA Program --

(Concluded from Page 1, Col. 3)

Entertainment for members and guests, under the direction of program chairman Dudley M. Cawthon of Miami, will include salt water fishing trips and conducted tours over the Dec. 4-5 weekend.

About 225 contractors from 22 cities are expected to attend the convention, according to Ray Kromer, executive vice president of RACCA.

Program for RACCA's eighth annual convention follows:

THURSDAY, DEC. 2

9:30 a.m.—Business meeting: committee reports, appointment of nominating committee, and 1955 program and budget.

12 noon—Luncheon Meeting.

12:45 p.m.—Formal opening of convention. President George T. Howe's report on progress.

1:15 p.m.—"United Association Interest and Participation in Program and Apprentice Training Activities of the Joint Committee." Peter T. Schoemann, assistant to the president, United Association.

2 p.m.—Open forum discussion on function and operation of the national and local joint program and training committees. Panel: 3 United Association joint committee members, 3 RACCA joint committee members.

3:15 p.m.—Adjournment.

3:30 to 6 p.m.—Membership and information conferences, headquarters room No. 858-860.

FRIDAY, DEC. 3

9:30 a.m.—Meeting opened by President Howe.

9:35 a.m.—Report of Executive Vice President Kromer on objectives and progress toward goals.

10 a.m.—"The Purpose, Procedure, and Advantages of Establishing 'Rules of Practice' for an Industry," Robert Secrest, Federal Trade Commissioner.

11:15 a.m.—Status and future activities of complaint against major dairies. Future services, suggestions invited in open forum.

11:45 a.m.—Adjournment.

1:30 p.m.—Sales clinic sponsored by Miami Sales Executives Club.

3 p.m.—Business meeting, RACCA members and delegates: report of nominating committee, election of officers.

4 p.m.—Adjournment.

4 to 5 p.m.—Membership conferences, convention headquarters in room No. 858-860.

6 p.m.—Cocktail party.

7 p.m.—Annual banquet: installation of officers.

NEMA Leaders See '55 as One of the Best-- Reader's Digest--

(Concluded from Page 1, Col. 4)
Co., vice chairman for the coming year.

At a meeting of NEMA's Household Refrigerator Section, W. J. Jeffrey, manager of refrigeration and range products for Kelvinator, was elected chairman of the section. F. C. Margold, manager, sales planning-refrigeration, Hotpoint Co., was chosen vice president.

Paul B. Thompson, assistant product specialist, refrigeration sales, International Harvester Co., was elected chairman of the Farm and Home Freezer Section at a meeting of that group. Elected vice chairman was Herbert Riband, sales manager-freezers, Philco Corp.

Electrical manufacturing is expanding at a rate twice that of industry as a whole, it was pointed out at the Major Appliance Div. meeting.

"This expansion, now at the rate of 7.9% a year, is expected to continue, and it is anticipated that the increase in use of home appliances will probably boost the average householder's use of electric energy from 2,300 to 5,000 kilowatt hours a year in the next 10 to 15 years," it was stated.

PROMOTIONAL EFFORTS TO CONTINUE

The promotional efforts of the NEMA appliance sections will be continued and expanded wherever possible in 1955.

"Advertising to individuals planning new homes and remodeling their present ones is planned," it was reported. "Because the construction of new homes continues in large volume, the installation of electric appliances such as the electric range and water heater is being sold to architects and builders.

"The importance of the replacement market is not being overlooked. It will be covered through various types of advertising and promotion.

"Some are aimed directly at the market (the campaign to merchandising plumbers on electric water heaters, for example). Others use a more direct approach—through both advertising and educational material directed to home economics teachers, home economists, and school management officials."

The fall meeting was keynoted by a fast-moving, 60-minute major appliance presentation—"Joint Action Today—For More Business Tomorrow." This presentation showed by means of cinemascope slides what the future of major appliances means to the entire electrical industry.

The show was presented under the auspices of the Major Appliance Div., and R. A. Rich, vice president and general manager, Appliance Div., Philco Corp., and outgoing chairman of the division, was master of ceremonies. It was featured at the association dinner.

Plans for a number of new promotional aids were announced at the Major Appliance Div. meeting. These included a new booklet on home economics laboratory planning for school management officials, offering suggestions on equipment that should be included, location of the laboratory, and planning for its use as a means of teaching family living to students.

A new edition of the "Cooking Electrically" booklet was also presented. This publication tells the story of electric range cooking from the consumer's viewpoint.

The "Electric Range Teaching Aid Kit" was also discussed. Introduced in 1953, this kit has achieved great success, more than 15,000 sets having been distributed chiefly to schools, necessitating a re-run.

FREEZER SECTION SEES REPLACEMENT MARKET

From the meeting of the Farm and Home Freezer Section came this comment:

"With more than a million units being installed in American homes every year, it looks as though the home freezer is here to stay. In fact, it has developed a predictable pattern of seasonal sales—and the replacement market is already becoming a factor."

So, it was stated, the section looked forward to continued progress in 1955.

In 1955, this section plans to continue its advertising and promotional efforts in the educational field. Its campaigns will be directed to home economics teachers, home economists, and school management officials—promoting the "Freezer Teaching Aid Kit," and the need for freezers in school laboratories for efficient instruction in this subject.

The campaign to teachers for next year catches the eye with teacher portraits, accompanied by statements as to the need for freezer teaching in the schools. Copy emphasizes the fact that you can't teach food freezing without a freezer.

The campaign to school management officials tells the same story, from the officials' angle.



W. K. Watts



I. G. Bohman

Perfex --

(Concluded from Page 1, Col. 2)

manufacture of heat transfer products and industrial cooling radiators since 1911 and has over 200,000 sq. ft. of floor space available for production. Perfex also manufactures automatic controls for heating, air conditioning, and appliances."

In another announcement, Edwin A. Gallun, chairman of the board of Perfex, reported the board's election of Irving G. Bohman as president and appointment of Ernest H. Panthofer as vice president.

Bohman fills the vacancy left by the resignation of Carroll E. Lewis who has been president of Perfex since 1946.

Bohman has an extensive industrial background, having served in various capacities with Perfex since 1940. Most recently he has held the position of vice president and general manager of the Radiator Div. Prior to joining Perfex, Bohman was associated with the Hercules Motors Corp. in Canton, Ohio, and Waukesha Motor Co. in Waukesha, Wis.

Panthofer most recently held the position of assistant general manager of the Radiator Div. He has been with Perfex since 1941.

(Concluded from Page 1, Col. 4)
after the big markup on freezer sales—as much as 48%. They promise anything, push off-brand freezers, deliver inferior meat and vegetables."

But, he continued, "if you can get comfortable assurance about the company, you will find advantages in a freezer-food plan. It is convenient. Plan members report that they cut marketing time by 75%, meal preparation time by 25%."

"The best plans help members to get the most out of their freezers. Some conduct classes in preparing and storing food. A plan representative drops by to see if the supply is holding up as planned. Seasonal food bargains are spotlighted. A home economist suggests bulk purchases that insure a well-balanced family diet. An insurance policy is provided in case of food spoilage through power failure."

Robb also advised prospective food plan purchasers that "you'll avoid booby traps by demanding a freezer of good reputation carrying a five-year parts warranty and a year's free repair service."

"See that the freezer price, interest charges, insurance, delivery, installation, and other extras are no more than you'd pay elsewhere. Get them down in black and white."

"All foods should carry official government gradings. Bulk meat

prices should include charges for chilling, trimming, aging, packaging.

"Better plans avoid overselling. They make it clear that if you're used to hamburger and stew, you can't switch to steak and save money."

"The new plans, for the most part sponsored by department stores, supermarkets, and locker plants, tend toward greater stability and permanence."

"By and large, the business is beginning to stabilize," Robb concluded. "This year the plans will account for 30% of all frozen food sales and 60% of home freezer sales."

Seeger Expansion --

(Concluded from Page 1, Col. 4)

1½ hp., it is stated. The compressor design will feature small size and light weight, and will be suitable for a wide range of temperatures, from food freezers through multi-temperature refrigerators to window air conditioners.

Larkin, the new manager of the Industrial Sales Div., has had more than 20 years' of experience in the refrigeration industry as a manufacturer and distributor. He comes to Seeger from the General Electric Co. Air Conditioning Div. He was educated at the Georgia School of Technology.

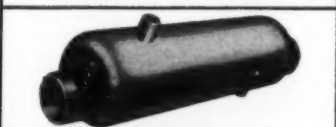
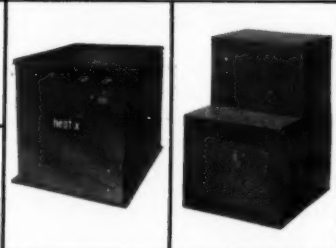
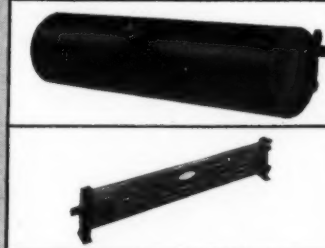
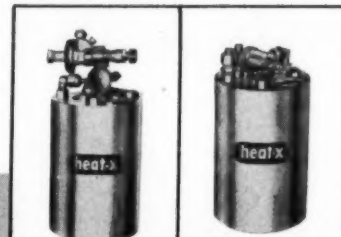
Gettys also comes to Seeger from the G-E Air Conditioning Div., with whom he had been connected for the past 12 years.

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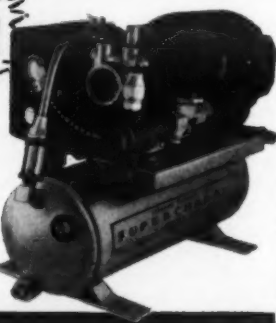
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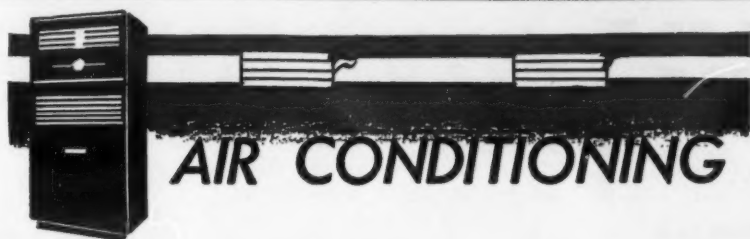
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10 Benefits That Food Stores Get from Installing Air Conditioning, Outlined for NCRSA by Hughes

By George M. Hanning

NEW YORK CITY—Ten benefits the food store operator gets from air conditioning were outlined recently by R. C. Hughes, assistant sales manager, Air Conditioning and Refrigeration Div., Worthington Corp.

Speaking at the eighth annual convention of the National Commercial Refrigerator Sales Association here, Hughes also pointed out the trend among food stores in air conditioning installation.

Customers Stay Longer

"One of the major reasons why the supermarket air conditions," he said, "is the impulse buying trend. The longer you can keep Mrs. Housewife in the store, the more things she will see that she did not intend to buy, and impulse will make her buy these extras."

"Obviously benefit number one must be profit when you are talking to any businessman," Hughes continued. "But this in itself can be broken down into many categories."

More Attracted to Store

"The first benefit is the fact that more customers are attracted to the air conditioned store as against its non-air conditioned competitor. Only last week a large supermarket operator told me I would be surprised how many actual letters they get from shoppers in the areas where their stores are not air conditioned, saying that people like to trade with them but won't until they air condition the store like the competitor down the street. This is an extremely important factor and one of the major reasons why they air condition."

"The second reason is the basic thinking that I have already outlined. A large part of the supermarket volume, no one knows just how much, is an impulse sale. If the store is attractive and comfortable, Mrs. Housewife will tend to stay there longer. The longer she stays, the more impulses she has, and the more she buys."

"One chain that I talked to op-

erates about 80 stores. Twenty-five per cent of them are now air conditioned. The present policy is 100% air conditioning for all new outlets and a well-established program for air conditioning all existing stores within the next two or three years."

Life of Perishables Prolonged

"Point number three in the benefits of air conditioning seems to be the very important one of the lengthening of shelf life of perishables, particularly candies, bakery goods, and fresh vegetables."

"While many markets use ice on their fresh vegetables, air conditioning is beneficial, if only from the standpoint of lowering the consumption of ice. The fact that this benefit was so high on the list of benefits rather surprised me."

"A side benefit under this same heading is the improvement in the quality of perishables during their shelf life. This increases the customer's satisfaction with the store resulting in repeat business."

Employee Efficiency and Lower Turnover

"The fourth benefit in the order of importance is employee efficiency and reduction of employee turnover. It seems to me, and the supermarket people concur, that the fact the store is air conditioned does not attract more prospective employees."

"However, it does create a happy employee which is a substantial fact in the reduction of employee turnover. In addition to this the fatigue factor is well known in relation to air conditioned working space. Without question this produces more work per dollar spent than in the un-air conditioned store."

"Under his general heading an additional rather intangible benefit is the psychological factor in the happy comfortable employee's friendly relation with Mrs. Housewife when she is buying the market's products. The clerk is comfortable and happy, he is more courteous and friendly to the customer—result, more sales."

Cuts Refrigeration Costs

"The fifth benefit of air conditioning is somewhat of a left-handed compliment. Particularly with the current trend toward frozen foods and packaged meats, the refrigerated display case load of the food store has been mounting with great rapidity."

"This refrigeration has become a major operational cost factor. The reduction in ambient temperatures of the areas in which these displays are located has resulted in a substantial and noticeable reduction in the cost of refrigeration."

"While this has sometimes increased the load on the air conditioning it has become a major factor in their consideration. This benefit is particularly true if the display cases are cooled by means of remotely located or water-cooled compressors which do not discharge heated air to the air conditioned space."

"There, gentlemen, are the five major benefits that the modern food store gets from air conditioning. However, there are several less important benefits which you should consider in building your sales story."

Prestige Is Important

"One is the prestige angle. This is certainly much more important in the small store than the supermarket, but there most assuredly is such a sales impulse."

"Joe's Delicatessen in the next

block is air conditioned so to keep up with Joe I need air conditioning, too."

"Along these lines I might mention some statistical information that we have compiled in relation to air conditioning of office space in major cities. This process started in the South and Southwest a number of years ago and has now reached a peak of activity on the Northern areas."

"In city after city it has been our experience that when about 15% of the prime office space is air conditioned then it becomes imperative that the other 85% buy air conditioning. I believe that you will find the same situation in the food store field."

Cleanliness

"Another very definite benefit of air conditioning is cleanliness. Not only is cleanliness, particularly in a food store, of a psychological benefit, but it is a mighty high cost maintenance item."

"The year-round, filtered ventilation provided by the modern air conditioning system definitely keeps the premises cleaner. This cleanliness reduces the necessity for janitor services and affects the costs of operation beneficially."

"The tendency in the larger stores that are being newly constructed is toward centralized systems which incorporate heating as well as cooling. These provide the benefits of filtered fresh air on a year-round basis. The introduction of tempered fresh air on a

12-month basis adds the benefit of helping to eliminate odors."

"Store design is most certainly an important factor in the supermarket field. The trend seems to be toward unitized structures, set off by themselves amid parking areas, where they are subject to the hot summer sun . . . all day long."

"In addition to this another trend is the usage of entire walls of glass, together with a great deal of artificial lighting. These structural trends seem to be well established in the business at the present time, and I wonder if we have stopped to realize that these very design trends which make the supermarket so successful could not be used without air conditioning."

"The summer temperatures in such a building without air conditioning would become unbearably hot. It is my feeling that the success of the modern supermarket is largely due to the fact that air conditioning has become practical for such buildings."

Small Store Owner's Personal Comfort

"Let's spend just a minute with the small store owner who is an important part of our market. Most of the above benefits are equally applicable to him, however, I believe that you have one very important additional benefit in his case."

"In general the small store is (Concluded on next page)

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All Eston refrigerants are filled under carefully controlled factory conditions, with material expertly analyzed for purity and moisture content.



DISPENSER VALVE—Pictured (above) is the new improved dispenser valve for use with ALL Charg-A-Cans.



"Freon-12" 95/100 lb.
"Freon-22" . . . 2 lb.
"Freon-114" . . . 1 lb.
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Methyl Chloride . . 2 lb.

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Air Conditioning Food Stores--

(Concluded from preceding page) owner-operated and Mr. Store Owner spends a large portion of his life working in his store. One point to emphasize with these people is their own personal comfort during their working hours. I feel this is an extremely effective sales tool and one which should be emphasized.

"Now that we have discussed very thoroughly the benefits to be derived from air conditioning, I

round residential type heating and cooling units which are located in the basement. Heating for the winter and cooling for the summer is being supplied for the store through the use of a duct system.

"Another very interesting job with which I am familiar is a large supermarket on the East Coast which was constructed with a flat ceiling under a roof supported by bow string trusses. The load was 40 tons of cooling which was sup-

10 Reasons Why Food Stores Should Be Air Conditioned

"The five major benefits of air conditioning to the modern food store are these:

- "1. It brings in more customers.
- "2. The customers stay longer and buy more.
- "3. Employee turnover is reduced, and efficiency is improved.
- "4. The shelf life of perishable foods is lengthened.

"5. The cost of refrigeration is reduced.

"Additional less important benefits are:

- "1. The prestige factor.
- "2. Cleanliness.
- "3. Reduction of odors.
- "4. Improved store design due to air conditioning.
- "5. Owner comfort while working in the store.

should like to spend just a few minutes with you on the major methods of accomplishing the job.

"The problem of installation seems to divide itself down fairly readily into two classifications; is it new construction or an existing building?

"In general the new construction field is going both to central station or packaged units depending on several circumstances. The first consideration is whether the building is owned by the store or is occupied on a leased basis.

"If it is owned, central station equipment combined with heating seems to be selected in most cases. If the building is leased, however, the trend seems to be more and more toward the installation of packaged units.

"I know of one large shopping center on the Eastern Seaboard, presently nearing completion, where the buildings are all occupied on a lease basis and the owner of the property is supplying neither cooling nor heating.

"This job is being handled by almost every conceivable means. One section which is being occupied by a department store is being air conditioned with a central station system. The rest of the stores, several of which are food stores, are all being handled by means of packaged equipment, some utilizing heating coils within the packaged equipment for winter heat, and some utilizing heating systems.

"Two of the smaller stores are being handled by means of year-

plied by means of eight 5-ton packaged units strategically located between the bow string trusses in the area between the ceiling and the roof.

"Ceiling diffusers are used for supply air with very short runs of duct from each unit. Return air is handled through nothing more than grilles located in the ceiling at some distance from the supplies, thus the area between the ceiling and the roof becomes a mammoth return plenum eliminating the necessity for any return ducts. A controlled amount of fresh air may be introduced into the system through adjustable louvers located above the ceiling.

"In the new construction field it seems that both methods are being used and the selection is largely a matter of the initial cost on the particular job, and the preference of the building owner, or the store owners.

"In the field of the existing store the cost factors are generally such that it is a great deal cheaper to install packaged units than a central station job and in most cases, the trend seems to be along those lines.

"No matter how much experience you may have as a salesman, you never know what particular point will close a sale. The only way to be sure you have done your selling job to the best of your ability is to hit every sales benefit."

FTC Approves Consent Order Against Sutton

WASHINGTON, D. C. — The Federal Trade Commission recently approved a consent order prohibiting O. A. Sutton Corp. from alleged false and misleading advertising of electric ventilating fans.

The commission's order sustained an initial decision filed by Hearing Examiner Abner E. Lipscomb on Sept. 21. The commission's complaint in this case was issued on June 18, 1954.

Under the order, Sutton will stop representing the ventilating capacity or ventilating performance of its fans to be greater than it is, the FTC said.

The order forbids the use of a numerically-expressed rating, or any other statement concerning performance capacity which exceeds the amount of cubic feet of air per minute that the fan can, under ordinary operating conditions, draw through its blades into or away from any place to be ventilated.

In consenting to the order, the company neither admitted nor denied any violation of law. It waived hearings and other procedural steps, as well as its right to contest the validity of the order.

INSIDE DOPE

Learn to live and laugh—
Thus delay your epitaph

By GEORGE
F. TAUBENECK

(Concluded from Page 1, Col. 1) corded distances of up to 600 miles.

Although the writer's hours are highly irregular, our collie regularly signals that the Old Man is homeward bound—every night we are in town.

After his evening meal this noble collie snoozes peacefully until he senses that "Dope" is on his way home. Be it 9:00 p.m. or 2:00 a.m., 20 minutes prior to our arrival (give or take a moment) this handsome animal bestirs himself, and paces 'round and 'round until we key open the door.

Members of the family (and "boy-sitters") have won many bets with air conditioning, refrigeration, and appliance industry guests on this score.

Everyday Living

Keeping up with the neighbors isn't so dangerous as passing them around a curve on a hill.

If you're too busy to laugh, you're too busy.

A man is as old as he feels—a woman as old as she admits.

No doubt you've seen those office mottos which say: "THINK" in large type.

Our hat's off to the Chicago joker who printed underneath: "Or THWIM."

What the world needs is that peace which passes all misunderstandings.—Banking.

Modern: A word used to describe something that has no other merit.

Gals who utter "nothing doing" often spend their evenings doing nothing.

It's sad for a girl to reach the age when men consider her charmless, but it is worse for man to attain the age when girls consider him harmless.

Verse of the Week

Oh, would I were a boy again,
When life seemed formed of sunny years,
And all the heart then knew of pain
Was wept away in transient tears!
When every tale Hope whispered then,
My fancy deemed was only truth.
Oh, would that I could know again,
The happy visions of my youth.

Sign perched atop a Route 12 restaurant:

"Sizzling plate one dollar."

In small print:

"Steak \$3.85 extra."

Let's Pause and Consider

What does Christianity mean?

In the Home, Kindness.

In Business, Honesty.

In Society, Courtesy.

In Work, Thoroughness.

In Play, Fairness.

To the Unfortunate, Pity.

To the Fortunate, Congratulation.

To Sin, Resistance.

To the Strong, Trust and Goodwill.

To the Weak, Help.

To the Penitent, Forgiveness.

To all Men, Reverence and Love.

To God, Worship and Service.

—CHARLES F. BANNING

Stimulant

Salesmanship is the greatest of all human professions, and ability to sell is the greatest of all human skills.

Think not? Well, didn't Columbus sell Isabelle the idea of a western route to the Indies? Didn't Benjamin Franklin and Thomas Edison, et al, sell the world the idea of using electricity for power? Didn't Washington and his associates sell the American colonists the idea of independence?

And think: who sold us the principle of love?—GARDNER HUNTING.

20-Year Guarantee!

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WETTED
DECK
SURFACE

HALSTEAD
& MITCHELL
COOLING
TOWERS

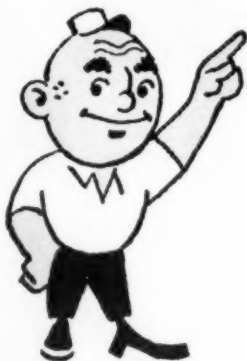
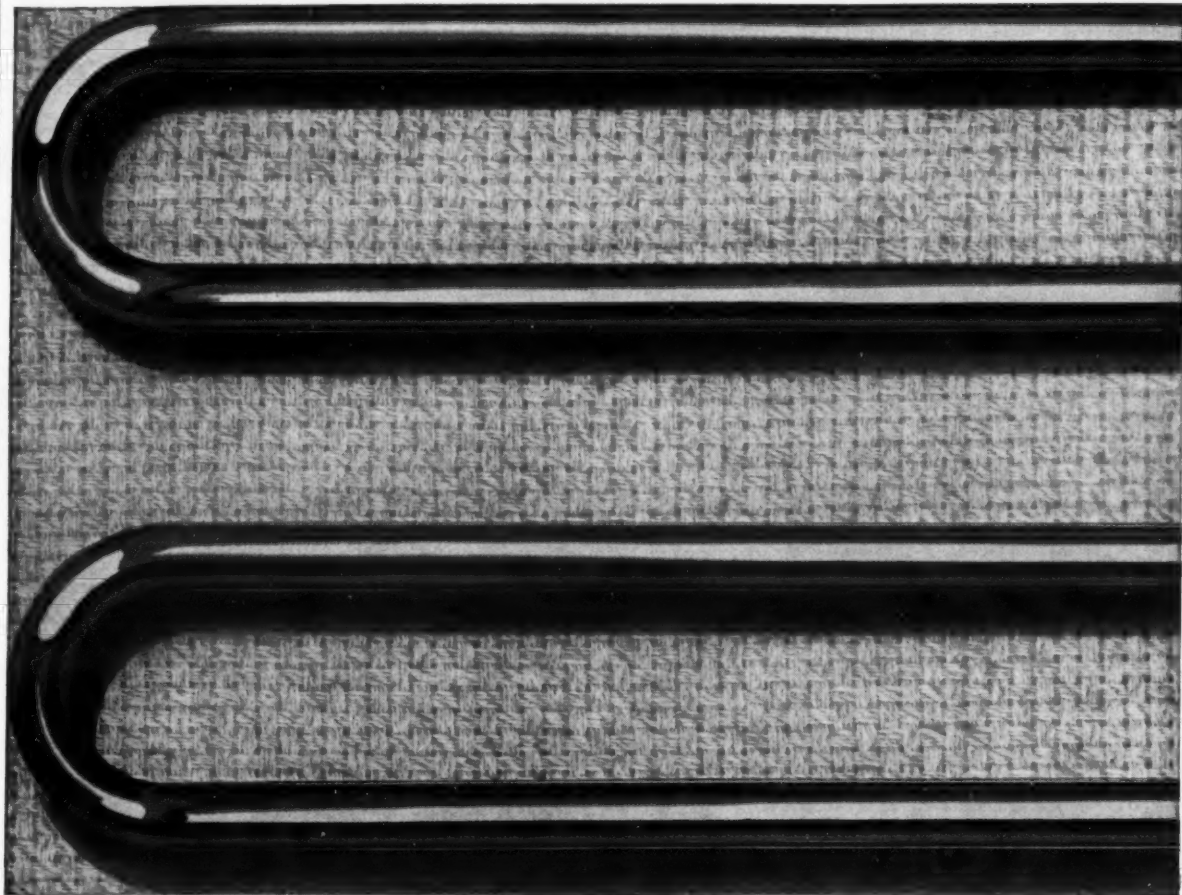
2 to
100 tons

"Built like a Battleship"—economical, lastworthy. Pressure-treated wood in wetted deck surface guarantees against rotting or fungi growth. Stainless steel fan and shaft, plus individual cabinet coatings of Vinsynite, Vinyl Aluminum and chlorinated rubber, add important years of life.

Wholesalers in Principal Cities

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Portrait of the coil
that stays sold!

WHY BUNDYWELD IS BETTER TUBING



Bundyweld starts as a single strip of copper-coated steel. Then it's...



continuously rolled twice around laterally into a tube of uniform thickness, and



passed through a furnace. Copper coating fuses with steel. Result...



Bundyweld, double-walled and brazed through 360° of wall contact.



NOTE the exclusive Bundy-developed beveled edges, which afford a smoother joint, absence of bead and less chance for any leakage.

Fair Trade: Pro and Con

Schwegmann, Sunbeam Clash In Columbia Debate

NEW YORK CITY—"Avoid fair trade and prosper," John Schwegmann, Jr., who did a \$24,000,000 volume last year at discount prices, advised small businessmen.

Speaking at a Columbia university seminar on current problems of small business, he contended that the merchant is entitled to no higher price than competition will allow.

The New Orleans supermarket operator bears lightly the burden of 51 injunctions from fair trade manufacturers and pictures himself as the friend of the consumer—the man he says fair trade forgets.

Vigorously opposing Schwegmann's position, J. W. Cervenka of Sunbeam Corp., which initiated one of Schwegmann's 51 injunctions, asserted that such competition is monopolistic and destructive.

On the other hand, the administrative assistant to Sunbeam's vice president in charge of sales declared that fair trade engenders a creative type of competition that means expanded markets and sales.

He argued that manufacturers and retailers who have spent effort and money to establish a strong brand name for their products so that the name becomes practically a household word are entitled to the protection of fair trade.

Both Schwegmann and Cervenka were attempting to answer from opposing viewpoints the question: "Is Fair Trade a Hindrance or Help In Expanding Small Business?"

Theodore H. Silbert, president of Standard Factors Corp., an installment financing firm that serves the appliance industry as well as others, was the moderator of the discussion.

It Offers Public No Protection, Contends New Orleans Discounter

Schwegmann urged small businessmen to shun fair trade because it "is the right thing to do, the American way." He declared that he did not want the "responsibility of telling thousands of people what

they should pay for something by signing a fair trade pact."

He added, "In this country we can make all the money we want. We don't have to do it by fair trade."

He charged that fair trade only benefited the manufacturers and the retailers and offered no protection for the consumer. He said he felt that the retailer was not entitled to any more protection than competition would allow.

'I'M GOING TO BE FRIEND TO THE CONSUMER'

"Sure competition is tough at times," he admitted, "but it's tough in the mills, too" with uncertain paychecks and layoffs. "I'm going to be a friend of the consumer," he declared.

Referring to other dealers who favored fair trade, he said, "If you want 50 to 75% profit, take it. But don't try to tell someone else how much he should make, someone who wants to work harder and learn a little more about his business. Under fair trade you don't need to know anything about your business, all you have to do is look in your little red book."

To sell, Schwegmann said, you must have prices in line with salaries. Under fair trade, you can't do it.

'LEGALIZED STEALING'

"Some fair trade prices are just legalized stealing," he charged. Fair trade, he asserted, does not guarantee customers. It just guarantees high prices and as a result the dealer may have no customers at all.

He insisted that even while he is under injunction by 51 manufac-

turers, there is no spirit of fair trade in New Orleans.

He is against fair trade "because I want to give the consumers a break," he stated. "I never quote a price any higher than I have to to cover the necessary expenses of operating my business."

Schwegmann indicated that he sets his prices on the basis of his own costs. "I don't pay any attention to my competitors."

"I say there is no limit to the sales you can make if your prices are lowered."

He denied that discounters were putting companies such as Sunbeam out of business. "If they

It Gives Manufacturer Chance To Achieve Mass Production, Sunbeam Spokesman Argues

Cervenka told his audience that there are only two ways for a business to expand.

One, he said, is to create a monopoly by cutting prices under the cost of doing business of your competitors. This does not create new business but just concentrates existing business in fewer hands.

"There's no magic there," he declared. "Merely cutting your costs below the average of others by trimming expenses is not efficiency. The dealer who tries this is only hoping to attract the customers of other dealers into his store."

In his great concern for the consumer, Cervenka indicated, he forgets that other merchants are consumers, too. And so are the employees of manufacturers and distributors whom he is harming by his actions.

The other way to expand business, he continued, is for the dealer to select those products he believes in and go out and do a constructive selling job. He stimulates consumer wants and thus increases the total market rather than concentrating the existing business into the hands of a few.

"This type of selling," Cervenka said, "offers the manufacturer the opportunity for broadening his sales through mass production. Under these circumstances he is encouraged to invest money in expanding sales, even to the point of borrowing it, before he makes a penny of profit."

Cervenka said that the manufacturer does this because he believes that he can achieve the sales to support mass production.

CREATIVE SELLING MUST BE REWARDED BY REASONABLE PROFIT

The retailer is willing to do creative selling only if he believes he can reap the reward of his work and get a reasonable profit for his effort. But he will not do it if the profit is snipped off by discounters who have not done anything or spent any money to develop the product.

"Constructive selling can only take place when dealers and manufacturers do not have the shadow of price cutting hanging over their heads," he declared.

Cervenka noted that in the United States, the average cost of doing business, as disclosed by various business surveys, is such that it requires 30 to 38% of list to cover the costs of doing business and make a reasonable profit.

Most stores, he said, have a cost of more than 25% of list to handle durable goods and the average is more than 30%. Sunbeam's discount structure is based on this average, he declared.

"The man who can do business at 15% over cost is either ignorant of the costs of doing business or is indifferent to the fate of his fellow retailers," Cervenka declared.

He pointed out that discounters can reduce their costs of operation by handling only national brand items that are so well accepted that they do not require selling, just wrap it up and take it. They handle no slow-moving merchandise and spend no money on serv-

bring out a better toaster at less money, they will sell it," he insisted.

He charged that the consumers, not the manufacturers and dealers, were paying for the national advertising done.

Schwegmann however labeled the fair trader's concern over the brand name protection as a "sham." He said that he had been enjoined by a drug manufacturer for violating fair trade when that manufacturer's product was only an ingredient of another product that was not sold under any brand name.

"All they really want to do," he said, "is to set prices."

ice. He said that a New England utility had told him it cost them \$10,000 to \$15,000 a year to service appliances abandoned by retailers.

Cervenka reminded his listeners that there can only be one price for a product in a given market. The lowest generally advertised price is the highest price that can be obtained.

When the price goes down below the cost of operation of the average dealer, the regular retailer ceases to handle that product and the discounter gets a monopoly.

"But the sad fact is," Cervenka said, "the discounters don't make as many sales as the regular retailers did. And that slows down production. Mass production requires steady work and advance planning. It can't be turned on and off like a faucet."

SUNBEAM LOST BUSINESS IN NON-FAIR TRADE AREAS

He backed up his statements by pointing out that Sunbeam has lost business in the non-fair trade states and in Washington, D. C. He pointed out that in Washington, D. C., where Sunbeam would normally expect to have more than 600 retailers handling its products, legitimate outlets won't handle them because 10 or so discount houses monopolize sales. As a result, he said, sales in Washington, D. C. in 1953 were down 11%, while national sales were up 15%.

And what about the consumer? Cervenka admitted that the individual who can buy a nationally advertised product at 20% off list has gotten a good buy.

But the income of other dealers and their employees have been reduced and they are also consumers. And, when other dealers quit handling that product, the selection offered to the consumer is reduced. That means that the consumer either has to go without or else travel at added expense to the place of business of the discounter.

Just as the manufacturer cannot set the plant standard of production at that of the most efficient worker, Cervenka said, so he cannot set his selling standard at that of the most efficient "super merchandiser." The plant standard must be that of the average worker and the merchandising standard that of the average retailer.

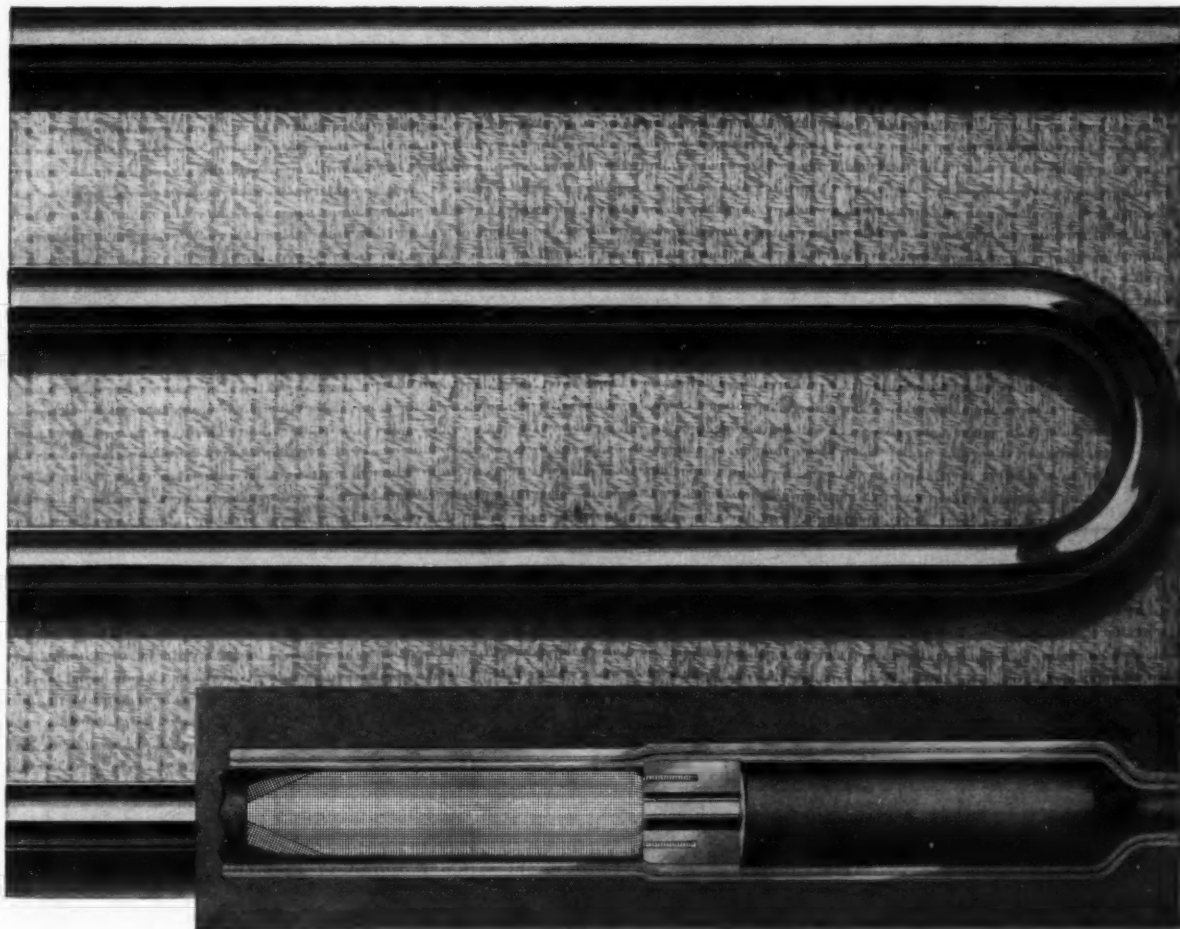
"When the dealers lower their average cost of doing business then gross margins will be reduced under fair trade," he said.

Cervenka was asked from the floor why, if fair trade was so important, so few products were actually fair traded.

He replied that many products which are not generally sold under a brand name, do not require fair trade protection.

"I can only defend fair trade," he said, "for the protection of manufacturers and dealers who have built up a reputation for the product. If a dealer doesn't hurt anybody by cutting prices, there is no need for fair trade."

"Under fair trade, all the manufacturer and dealer want is protection for the name. If the fair trade price is too high, the customer will not buy the product. That is our worry."



Another Bundy-pioneered idea which saves you time and money

HERE at Bundy we don't rest on our laurels just because we produce condenser coils that will go on working faithfully through many years of efficient, leakproof service. We constantly improve on these condenser coils.

Take the strainer application above, for example. Instead of adding the customary separate tubular strainer between the end of the condenser coil and the capillary tube, Bundy built a small strainer into the condenser coil. The strainer, fitted to brass

collar, is press-fit into the expanded end of the condenser coil. The strainer end of the coil is then swaged at the tip joining the capillary tube. A joint is eliminated, saving time and cost of making additional expanded part and assembling it onto coil.

Bundyweld's ability to expand readily and without leakage makes this particular application possible. For example, Bundyweld expands from 1/4" O.D. to 1/4" I.D. The O.D. of the filter screen section is .170 O.D., which

slips inside the expanded section and guarantees a full 1/32" clearance all the way around the screen as it fits into the tube.

Solving problems like this one is a habit with us at Bundy. We offer unexcelled fabrication facilities, specialized engineering skills, and a conscientious devotion to our customers' problems. Perhaps we can help you, too. Why not call VA 3-1300 in Detroit for information on your applications.

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Bundy Tubing Distributors and Representatives: Bridgeport, Conn.: Korhonen Steel & Aluminum Co., 117 E. Washington St. • Cambridge 42, Mass.: Austin-Hastings Co., Inc., 226 Binney St. • Chattanooga 2, Tenn.: Peirson-Deakins Co., 823-824 Chattanooga Bank Bldg. • Chicago 32, Ill.: Lapham-Hickey Co., 3333 W. 47th Place • Elizabeth, New Jersey: A. B. Murray Co., Inc., Post Office Box 476 • Los Angeles 58, Calif.: Tubosoles, 5400 Alcoa Ave. • Philadelphia 3, Penn.: Rutan & Co., 1717 Sanson St. • San Francisco 10, Calif.: Pacific Metals Co., Ltd., 3100 19th St. • Seattle 4, Wash.: Eagle Metals Co., 4755 First Ave., South • Toronto 5, Ontario, Canada: Alloy Metal Sales, Ltd., 181 Fleet St., East. Bundyweld nickel and Monel tubing are sold by distributors of nickel and nickel alloys in principal cities.

Financing Methods

Commercial Distributor Prefers Coin Meters, But Also Uses Trade-Out Items As Down Payment, Pyramid Contracts, Bank Rebates and Lease Agreements

By George M. Hanning

NEW YORK CITY—How his commercial refrigeration distributorship has increased its volume and its net earnings through successful financing was described at the recent convention of the National Commercial Refrigerator Sales Association here by George F. Wiedemer, president of Cable, Wiedemer, Inc. of Rochester, N. Y.

Wiedemer, who was elected president of the national group at the meeting, reminded his audience that his firm is also interested in the restaurant and institutional equipment business which provides additional opportunities to employ several different financial methods.

Often No Down Payment Is Needed With Meter

"In my opinion one of the finest ways to finance any sale is by the use of coin meters," Wiedemer said. "When a sale is consummated and the salesman indicates the use of a meter we are willing to accept a minimum down payment, and in the case of ice cubers, meat and bone cutters, slicers, and that type of product, we will install the item without any down payment, only sales tax.

"Naturally a good credit rating by the customer is essential. We also loan such meters to a customer until the final payment on a contract is made. In the past three years when we have kept records we have had only two pull jobs where a meter had been installed.

"That includes ice cubers in small restaurants, restaurant equipment, reach-in refrigerators, in eating establishments, roadside stands, various walk-in cooler installations, and many other types of equipment.

"These meters, of course, are hooked up electrically and once in a while you find a customer who is adept at jumping these meters, which creates a problem.

Traded-Out Merchandise

"Next, I should like to mention that an increasing trend in our industry is the practice of customers to request that traded-out merchandise be used as a down payment. I am referring mainly to the customer who has purchased equipment that is not too old but is of a size that prevents his increasing his volume.

"The condition may be such that he cannot afford any additional down payment and consequently we have been accepting orders of this type. Of course, there must be a common meeting ground between the sales department and the credit department. Many friends can be made by going along with a customer who is willing to progress by this method.

Pyramid Contracts

"Along these lines we have been getting more and more into the pyramid contract, that is, where equipment is added to a contract after six months or a year of operation.

"On this I would suggest your contacting both your attorney and your banker because this might be legal in one state and illegal in another. However there are many ways by which to surmount this obstacle and I advise your looking into this if you have not already done so.

"In financing equipment sales such as ours, the best and most profitable way is to finance your own sales. Good capital structure is necessary to do this.

"If you have the office personnel

Commercial Refrigeration

to follow up on delinquents and the other 90 odd jobs in doing so, you will find that the interest earned is actually better than the net earned from operations. However a sufficiently large volume of business is necessary in order to do this profitably.

Financing Own Contracts On Used Equipment

"Recently we have had several pieces of used market equipment, merchandise that we traded in, such as the older style open single-deck vegetable and dairy cases, along with a few closed meat display cases, and we have sold much of this type of merchandise on contracts that we have financed ourselves.

"Not having to lay out any additional money for purchase of new equipment we found that we were able to finance these contracts ourselves, thereby earning additional revenue. Used slicers, meat and bone cutters, ice cubers, and the like fall into this category and we feel that more profit will be forthcoming in the future.

"Many firms borrow large amounts monthly, at a specified interest rate, and then when a note becomes due they periodically pay off all or part with several contracts written in the interim. This method is also very lucrative if you are doing a good volume.

Getting Rebate from Bank

"Another way to finance sales to the best advantage, and one used by a lot of us, is to finance contracts through the local bank at whatever rate you desire, 5, 6, or 7%, and then have the bank rebate to you monthly, quarterly, or at the end of the year.

"You can then allow these accumulated amounts to remain and take them when you wish, or use them for later financing. Many of the banks in our area, along with the distributor's cooperation, are using the 6% rate chart and are rebating 2% to the distributor.

"This rebate can occur once a month, quarterly, or at the end of

the year. This, of course, puts all of the labor in the hands of the bank, and actually you are in business with the bank. Their doing this work is a big help and eliminates much credit detail.

"Some distributors are using the manufacturers they represent for the financing of their sales, and many speak well of this method.

"In recent years many air conditioning distributors have used FHA as a means of financing. In the past this could have been done only providing the equipment became a part of the building. This also held true where you put in a built-up walk-in cooler and refrigeration.

"However, the amounts you were allowed to finance were limited to a total of \$2,500. I understand that on Oct. 1 of this year new regulations emanated from FHA in Washington and if you are using FHA for financing it would behoove you to check on this ruling.

Renting and Leasing

"The last method on which I should like to comment briefly is the rental or lease agreement in which I am vitally interested. Recently we have had occasion to enter into three lease agreements:

"1. With a nationally known food catering firm, for several ice cubers to be delivered to different locations.

"2. A large dairy, for several frozen food cases.

"3. The same dairy in another new location catering to the drive-in customer.

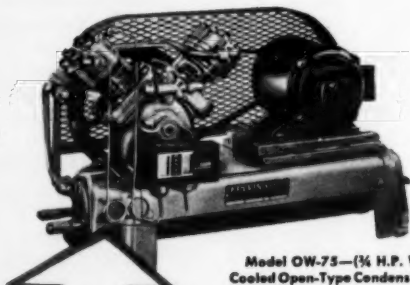
"The entire contract was put on a lease agreement. A good line of credit with your bank is necessary for this type of financing, but it is a new gimmick and one that is definitely very profitable.

"I understand these lease agreements are being used extensively by national ice cream manufacturers, particularly in the loaning or giving away of ice cream cabinets. Also I understand that lease agreements are being used extensively on the West Coast."

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1/4 H.P. Capacitor Start

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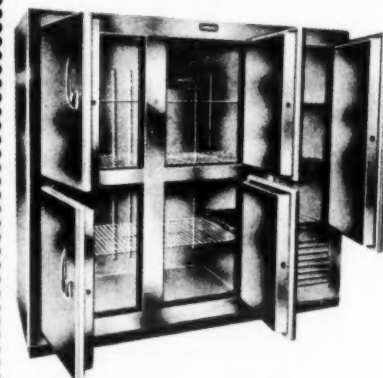
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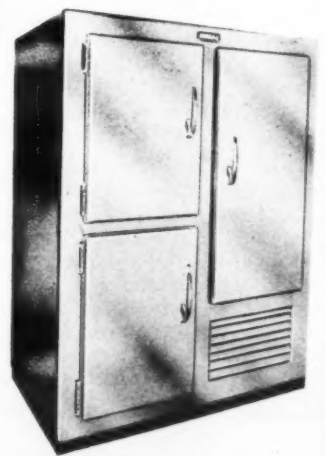


above: MODEL No. S-65SC

right: MODEL No. S-42SC

No plumbing connections necessary. Water evaporates automatically. Complete capillary system.

45 models of commercial refrigerators for restaurants, hotels, bakeries, schools, hospitals, etc. Send for free brochure.



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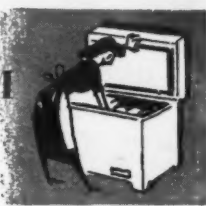
SILCO Products—division of

SILVER Refrigeration Mfg. Corp.

1875 Eastern Parkway, Brooklyn, N. Y.



HOME & FARM FREEZERS



'Kallison's Freezer Kollege' Lured 3,000 To Store and 45,000 More To Their TV Sets

SAN ANTONIO—If you're looking for an effective way to push home freezers, you might take a leaf from the bulging promotional book of Kallison's Big Country Store here.

This aggressive concern, which is noted for its elaborate sales promotions, dreamed up a freezer program that lured more than 3,000 persons to the store.

Staged last year, the all-day event was called "Kallison's Freezer Kollege." Elements of the highly-successful affair included freezing and freezer demonstrations, a "Treasure Hunt" with nearly \$700 in prizes for winners, and a TV presentation.

An hour-long show, the TV program was televised directly from Kallison's Hall, adjacent to the store. An audience estimated at 45,000 watched this presentation. Hundreds viewed the telecast on sets in Kallison's display area.

'RED RIVER DAVE' WAS DEAN

Acting as "dean" of the Freezer Kollege was the General Electric dealership's popular radio-TV cowboy star, "Red River Dave," who is sales supervisor for Kallison's food plan.

The Kollege showed visitors how to use their freezers to the best advantage. Via demonstrations, they learned the latest methods of preparing food for the freezer, including ways of wrapping to preserve meats and vegetables in large quantities. They were also told what foods to buy in peak seasons at highest quality and lowest price.

Among those conducting these demonstrations were Polly Monroe, G-E home economist, and an expert butcher. In addition to food preparation techniques, visitors were given detailed information on features of G-E freezers.

To add excitement to the event, Kallison's had a Treasure Hunt in which participants hunted for G-E emblems hidden about the store. They recorded on cards the number of emblems found, and these were put in a big hopper from which prize winners were selected.

Prizes included an 11-cu. ft. freezer, two freezer carts, two packaging sets, two saw and cutting boards, a radio, and a grill.

PROMOTIONS HELP ESTABLISH RECORD

Promotions such as this have helped the San Antonio pioneer organization, owned and operated by brothers Perry and Morris Kallison, establish an outstanding record for sales of G-E appliances, particularly freezers. And the reason given for the firm's success with freezers is its food plan, plugged by Red River Dave with demonstrations, talks, and personal visits to customers' homes.

Albany Dealer Dies

ALBANY, N. Y.—C. Eugene Lamkins, 52, head of the Central Appliance Co., died suddenly recently at his home.

Walsh Handles Manitowoc For 42 Texas Counties

MANITOWOC, Wis. — Newest distributor in the expanding sales organization for Manitowoc products is J. A. Walsh & Co. of Houston, Texas.

According to Thomas F. Hannon, Manitowoc sales manager, this southwestern organization will handle distribution in 42 counties in Texas.

Walsh offers to dealers in this area excellent facilities including an auditorium for sales as well as consumer meetings, a completely-equipped demonstration kitchen, warehouse, and transportation facilities, it was pointed out.

Los Angeles Firm Named Deepfreeze Distributor

N. CHICAGO, Ill.—Appointment of Radio Television Supply Co., Inc., Los Angeles, as distributor for Deepfreeze Home Appliances has been announced by J. A. Rishel, Jr., the manufacturer's general sales manager.

The distributorship covers 11 counties of southern California, three Nevada counties, and Yuma County, Arizona. The firm was organized in 1927. Officials include J. H. Moulthrop, president, and S. J. Marsh, general manager.

Seeger's \$5,986,929 Net Income Is Highest In History—16% Above 1953

ST. PAUL, Minn. — Seeger Refrigerator Co. has reported the highest earnings in its history in the fiscal year ended Aug. 31, 1954.

Net income totaled \$5,986,929 after taxes, an increase of 16% over earnings of \$5,169,664 in the corresponding 12 months the year before.

Seeger also announced that it has expanded its line of compressors to include those of greater capacity, designed a new and improved line of domestic refrigerators for 1955, and started the tooling program to build refrigerated bulk milk storage tanks for farm use.

The company's annual report disclosed that the year's earnings were equal to \$5.32 a share based on 1,125,685 shares of common stock outstanding, compared with \$4.61 a share based on 1,120,500 common shares outstanding at the 1953 fiscal year end.

Net sales totaled \$112,564,615, a reduction of 3.6% from \$116,742,097 the year before. Gross earnings before taxes amounted to \$12,896,929, as against \$12,579,664.

Walter G. Seeger, board chairman, and John S. Holl, president, pointed out that, while the company's sales were down slightly, increased efficiencies and expira-

tion of the excess profits law enabled Seeger to record higher earnings.

Inventories at Aug. 31 totaled \$9,283,025, compared with \$23,481,981 at the same 1953 date. Finished goods inventories were somewhat lower than normal, due to the improved demand for Seeger products in the latter part of the fiscal year.

"This not only is encouraging but it also assures production for the start of the new year on a very satisfactory basis," the report said. "Improved material supply during the past year has enabled us to reduce inventories of raw materials."

The company continues to manufacture for Sears Roebuck & Co. the complete Coldspot line of household refrigerators, farm and home freezers, and dehumidifiers, as well as a line of commercial refrigerators and ice cube makers for the Frigidaire Div. of General Motors Corp., it was noted.

Defense production at both Seeger plants is expected to continue into the current fiscal year, the report said. The company's Evansville, Ind. plant produces empennages and other equipment for jet aircraft and its St. Paul, Minn. plant makes external drop fuel tanks for jet fighter planes.



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AIR CONDITIONING & REFRIGERATION News

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NOVEMBER 22, 1954

Refrigeration vs. Atomic Science In the Preservation of Food

Wildly, and unsupportedly, all sorts of dreams and guesses about atomic food preservation have been bandied around lately.

Inasmuch as this Newspaper of the Industry has a large stake in the food-preservation business, we've tracked down these Jules Verne Dreams to their lairs, and assayed them.

Net result: dealers, distributors, suppliers, and manufacturers of refrigeration have less than nothing to fear.

Irradiation-preservation is yet to be proved. And, even if it turns out to be commercially worthy, refrigeration still will be needed.

Here's what we learned:

Tax-paid bureaus will spend about six-million dollars in the next few years to learn something about the effects of radiation on all kinds of food. End result: our Armed Forces MAY begin to substitute irradiated food for canned meat rations.

Also, irradiated meats *might* move into food stores. They will not take the place of fresh meats, however. More likely they will replace canned prepared meat.

Spicy flavors which canned meats enjoy apparently can't be incorporated into irradiated meat. Furthermore, irradiated food-stuffs haven't been proved SAFE.

In the meantime, research groups must work long and hard on economic factors, such as:

- (1) Can radiation's cost be brought within reach of other sterilization methods?
- (2) How can we preserve perishable foodstuffs at normal temperatures without changing their flavors?

That question of flavor is important. Consumers might find

They'll Do It Every Time Jimmy Hatlo



certain kinds of irradiated meat to be distasteful—and decide not to eat it—which could put a real damper on the idea.

The Army Quartermaster Corps—the big moneydonor behind the project—is eager to prove that irradiated food tastes ALMOST as good as fresh food—or at least good enough to keep a hungry GI from turning up his nose at it.

But the Quartermasters admit:

- (1) they have a long way to go;
- (2) they haven't proved anything yet.

After all this happy, helpful, cooperative examination of atomically preserved foods, all we have to report is:

Long live refrigeration!

Obviously it will be needed so long as we (you and I) are in this business.

Atomic food preservation won't make ice cubes, nor keep milk cool, nor provide food storage space.

Don't give up your refrigerator-freezer franchise, Mr. Dealer. You'll be needed far into the foreseeable future.

To This Premise Every Traveling Man Will Hearty: 'Amen'

A regularly-scheduled flight from Washington arrived at Willow Run Airport on time at 3:25 a.m. not long ago. Two dozen sleepy passengers trudged into the terminal, and congregated at the baggage counter.

Almost an hour later they were still waiting for their luggage. Meantime, the airporter bus for Detroit had taken off for downtown hotels. Those airline passengers were stranded for another hour.

Inexcusable!

The technology of air travel has outstripped the less demanding science of distributing persons and goods once the destination is reached.

When faster airliners come into service—further shrinking the time factor between airports—those unconscionable delays at airports will become proportionately more frustrating.

A fraction of the sums spent on engineering superswift airliners, if diverted to research on the baggage problem, would please Mr. Business Traveler a great deal more.

Music is the universal language of mankind.—LONGFELLOW.

Not by years but by disposition is wisdom acquired.—PLATON.

Age is not so much a matter of gray hair as it is of gray matter. Beauty is more the result of how you make up your mind than how you make up your face.—Christian Advocate.



O. M. Timm-Green
Kaiser Street
Windhoek,
S. W. Africa

Editor:

We are members of the Windhoek Chamber of Commerce, manufacturers representatives in our own name and importers and wholesalers in the name of Messrs. Koh-i-Noor Distributors, Windhoek, P. W. Box 1083, Windhoek, South-West-Africa, and interested to promote business in American goods in our country.

We have the support of the Consulate General of the American Foreign Service and the United States Department of Commerce—but we would be pleased if you could assist us in our endeavors to introduce here hitherto unknown American merchandise and technical novelties.

Please put us in touch with manufacturers and exporters interested to cooperate and we hope our mutual efforts will result to the advantage for both countries.

O. M. TIMM-GREEN

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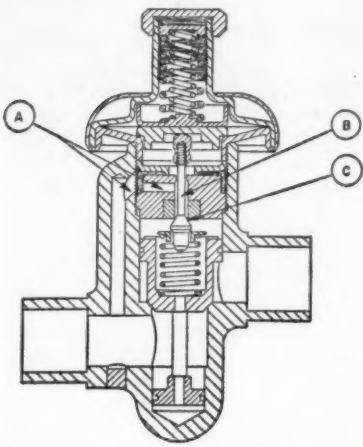


FIG. 1 shows a typical suction pressure regulator with internal pilot.

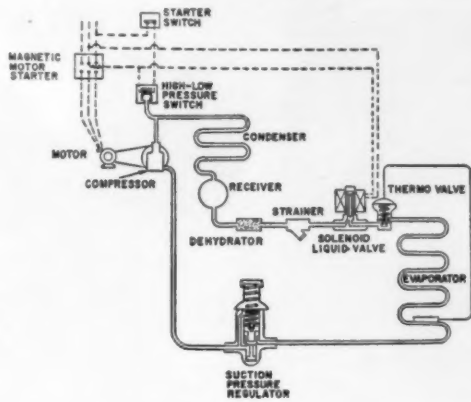


FIG. 2—This is typical application of suction pressure regulator with internal pilot.

Suction Line Controls—1

Regulators Operated by Internal or External Pilots Are Finding Increased Use, Arley Baker Tells Service Group

WICHITA, Kan.—“In the past few years there has been a great deal of development of suction line controls,” the Mid-West association of RSES was told at its sixth annual meeting here by Arley Baker, sales promotion manager of Alco Valve Co.

Suction pressure regulators, operated by internal or external pilots, are finding increased use in the air conditioning and refrigeration industry, he indicated, to regulate suction pressure at the compressor. Similarly, evaporator pressure regulators regulate the evaporator pressure.

“On some installations,” he explained, “the load may exceed the value that can be safely carried by the compressor motor. In order to protect the compressor motor from overloads and possible burn-out as a result of excessive suction pressure, a valve must be provided that will limit the suction pressure at the compressor.

“To a degree this has been accomplished by the use of pressure limited types of expansion valves on some systems. However, on other systems, the refrigerant contained in the evaporator will create excessive suction pressures during a prolonged shut-down period or following the defrost period,” he said.

Suction Pressure Regulator Prevents Motor Overload

“The suction pressure regulator has been designed to prevent motor overload caused by excessively high suction pressure.

“In Fig. 1, which shows an internally pilot-operated suction pressure regulator, the compressor suction pressure is transmitted through passage A to the space beneath the diaphragm, where it exerts its pressure against the opening spring pressure on top of the diaphragm.

“When the compressor suction pressure drops below the value of the top opening spring pressure, the diaphragm moves downward, pressing the pilot stem and pin B in an opening direction with respect to pilot port C, allowing the pressure in the space above the piston to be reduced by flowing into the passage A.

“Because the pressure on the upstream of evaporator side of the piston is greater than the compressor suction pressure,” Baker continued, “the differential pressure across the piston moves it in an opening direction. This allows more gas to flow to the compressor.

“When the compressor suction pressure approaches and exceeds the top opening spring pressure, the diaphragm is moved upward, allowing the pilot valve spring to move the pilot stem and pin in a closing direction.

“This,” he said, “reduces the escape of gas from on top of the piston. With the pilot port throttled, the pressure builds up on top of the piston through a bleed hole in the piston and through the clearance around the piston. Pres-

sure differential across the piston moves it in a closing direction.

“Limiting point of the outlet pressure of the suction pressure regulator can be changed by adjusting the top opening spring pressure.

Cannot Be Used To Regulate Evaporator Pressure

“The suction pressure regulator cannot be used under any circumstances to regulate evaporator pressure,” Baker cautioned.

“It should be used, however, on any installation where compressor motor protection is required because of:

- “1. High starting loads.
- “2. Surges in suction pressure.
- “3. High suction pressure caused by hot gas defrost.
- “4. Prolonged operation at excessive suction pressures.
- “5. Low voltage and high suction pressure conditions.

“A typical application of an internally pilot-operated suction pressure regulator is shown in Fig. 2, while Fig. 3 shows an application of a regulator with an external pilot and solenoid pilot valve for positive shut-off.

“On low temperature installations where minimum suction line pressure drop is of the utmost importance, it is desirable to operate suction pressure regulators without the normal pressure drop necessary to move the valve through its full stroke,” Baker explained.

“This can be accomplished by using the compressor discharge gas to pilot the regulator as shown in Fig. 4.

“With this arrangement, the only pressure drop through the regulator is due to friction and this can be made negligible by choosing a regulator with the same port size as the suction line.

“The loss due to the hot gas bleed through the regulator is insignificant due to the small quantity involved,” he said.

“Sole function of the evaporator pressure regulator is to prevent the evaporator pressure from falling below a predetermined pressure for which the regulator has been set. It may be used on a single evaporator such as a water chiller or several may be used on a multiple system to maintain minimum pressures on individual evaporators.”

A typical evaporator pressure regulator is shown in Fig. 5.

“When the evaporator pressure rises above the pressure setting of the pilot,” Baker explained, “the pilot valve moves in an opening direction admitting more pressure to space above main piston.

“This increase in pressure above the piston moves the main piston downward, thereby moving the main valve in an opening direction, thus causing the evaporator pressure to drop back to the original setting.

“When the evaporator pressure starts to drop below the pressure setting of the pilot, the pilot valve

moves in a closing direction, causing the pressure above the main piston to decrease. This allows the main spring to move the main valve in the closing direction.

“This prevents the evaporator pressure from falling below the pressure setting of the pilot. In operation the pilot valve and main piston assume intermediate or throttling positions, depending on the load.

(To Be Continued)

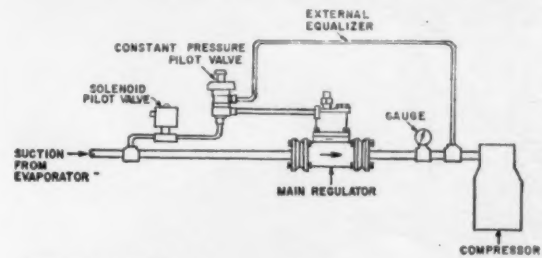


FIG. 3—Externally pilot operated suction pressure regulator is employed here with solenoid pilot valve for positive shut-off.

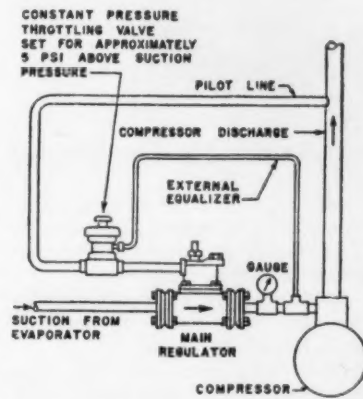


FIG. 4—For low temperature service external pilot of suction pressure regulator is connected to compressor discharge gas line.

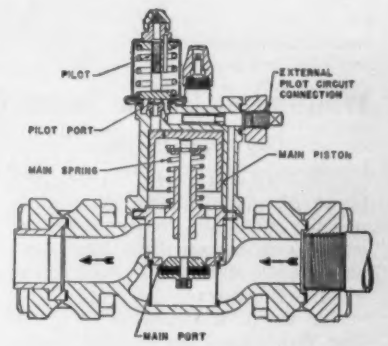


FIG. 5—This is a typical evaporator pressure regulator.

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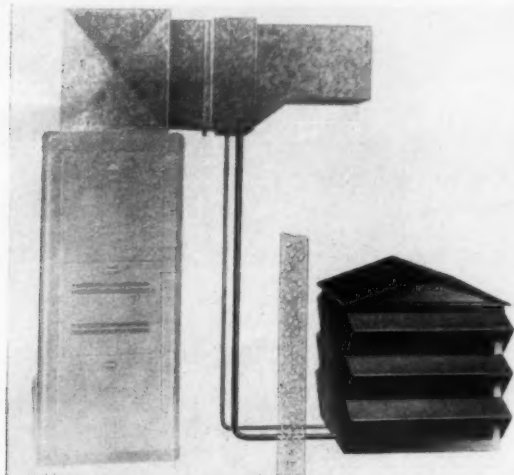


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ALCO VALVE CO.

What's New

When requesting further information on new products, please use "Information Center" form.



Williamson Offers 'Waterless' Home Air Conditioner

KEY NO. D-1149

CINCINNATI—New "Waterless" home air conditioners claimed to provide efficiency equal to water-cooled condensing units have been announced by The Williamson Heater Co. here.

The units "incorporate an exclusive Williamson air cooling design with the latest scientific developments in air conditioning," the

company said. It pointed out that the units are highly desirable for use in areas where water and sewer usage is expensive.

Duct-type, package, and counter-flow air conditioners are available in 2, 3, and 5-hp. sizes.

"The new waterless duct type units require no floor space," Williamson said. "A cooling coil is easily inserted in or connected to

furnace heating pipes or ducts. Liquid and vapor lines run from the coil to the condenser. The air-cooled condensing unit, located outdoors, is hidden conveniently among shrubbery.

Compressors of the air conditioners are guaranteed for five years.



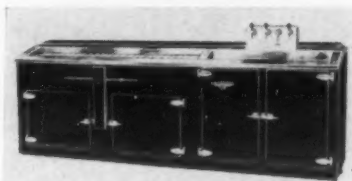
Portable Cylinder Has 35-Lb. Gas Capacity

KEY NO. D-11410

DETROIT—Claimed to be the only large capacity cylinder designed for portable equipment operation, a 35-lb. gas capacity cylinder measures 14 3/4 in. wide and 20 3/4 in. high. Made of high tensile steel, it has a wide, stable base mounted on large curled foot rings. It also has a full collar for valve protection and a flange type valve with excess flow check and pressure relief. A carrying handle is provided.

By using a T-cylinder connector and two 12 1/2-ft. extension hoses, two units of Insto-Gas equipment can be operated from a single "35" cylinder, the company said.

'Club Special' Features Versatility



KEY NO. D-11411

LA CROSSE, Wis.—A new "Club Special" combination bottle cooler, keg pre-cooler, and dispenser has been introduced by the La Crosse Cooler Co. here.

The company believes the Club Special to be one of the most versatile units of its type being

offered today, as it not only includes the popular direct refrigerated faucet station, but in addition is now available for the simultaneous tapping of three kegs of beer.

It is produced of specially treated zinc-grip, paint-grip metal for better life expectancy.

The unit incorporates a two-coil refrigeration system. Hardware is the heavy-duty chrome plated type, with a padlock feature. Design is aimed at making possible more efficient serving of the public with a minimum of wasted effort by employees.

'7-Day Dial' Allows Full Week's Scheduling

KEY NO. D-11412

MOUNT VERNON, N. Y.—Tork Clock Co., Inc. here has introduced a "7-Day Dial" which enables a full week's scheduling of automatic "On-Off" control, for year-round use.

This new addition to Tork Clock's switches for automatic control of electrical devices will permit the programming of operations without the need for manual control to alter schedules as daily needs require. Applications include air conditioning, ventilating, and heating.

Here's how it works, according to the company:

"The Tork 7-Day Dial is sectioned and marked for each day of the week, with each of the sections slotted to accept programming tabs. Divided and marked into 2 hour periods, at even hours, there are a total of 84 slots. The Tork switch is installed into the line controlling the electrical device, and unless altered, is always in the Off position.

"Tabs are inserted into the slots for the hours that On operation is required. As the slow-moving dial rotates, the tabs reaching the On contact close the circuit, turning the lights or heating system being controlled On. When the

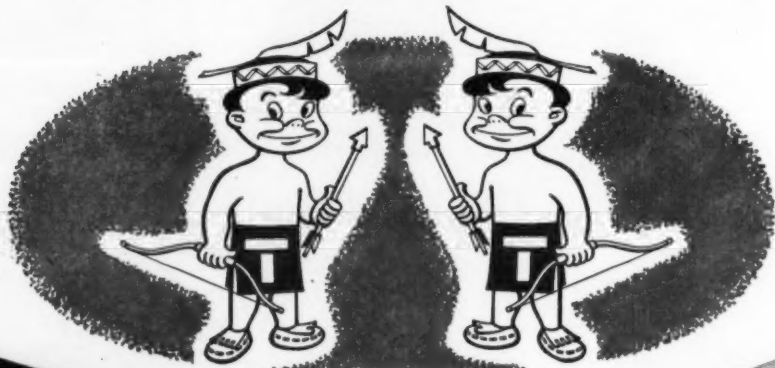
last tab passes the switch, pressure is removed from the contact and it returns to normal Off.

"The new dial enables users to, with the one setting, program operation of electrical units to any schedule desired. Formerly, Tork switches would turn devices On and Off at the same pre-set time each day."

Model number and list prices are: Model 7D801, for single pole—\$22.95; model 7D802, for double pole—\$27.95; model 7D807, for single pole, double throw—\$24.95. All models are rated at 10 amps. and are UL approved. The unit is 8 1/2 in. high and 5 in. wide.

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LARGE ROOM COOLERS

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HAS SAME COMPACT BASIC DESIGN as the 1 h.p. model, and is adaptable to most cabinets. It is slightly higher, but the width and mounting dimensions are the same. Start and run capacitors are bulkhead mounted, remote from the compressor.

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Information Center

For more information on What's New products, current literature and catalogs available, equipment advertised in AIR CONDITIONING & REFRIGERATION NEWS use Key Numbers where designated or specify products advertised and we'll see that you receive this information promptly.

What's New or Current Literature Available

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What Was New

At the Dairy Show



THERMALLY INDUCED AIR FLOW and automatic self-defrost are features of the new ice cream display cabinet shown by the Freez Rite Div. of Bailey & Perkins Co. Clare L. Perkins, partner in the company (r.), explains all this to Arthur H. Walls of Borden Ice Cream Co. in Wilmington, Del.

KEY NO. D-1141



R. S. HANNEGAN, sales manager of the C. Nelson Co., poses with his firm's new model GPPA 19½-cu. ft. open ice cream merchandising case, shown for the first time at the Dairy Show.

KEY NO. D-1142



BEHIND THE glass display front of the Fischman bulk ice cream merchandising case are 12 10-gal. capacity cans of varied flavors of ice cream for dipping. A. C. Stetten, general manager of the Fischman Co., points toward the dip cans.

KEY NO. D-1143



DOMINATING THE SPACE occupied by the Freezer Box Div. of Annapolis Yacht Yard, Inc. is this huge ice cream hardening and distribution vault for outdoor or indoor installation.

KEY NO. D-1144



MADE FROM COMPLETELY NEW DIES is this new 5-ft. all storage fountain exhibited by Phenix Soda Fountain Co., Inc. Marvin Weisberg, president (shown here), said that all the company's models are now being changed to new dies.

KEY NO. D-1145



AN OUTDOOR MILK VENDOR was the center of attention at the Refrigeration Engineering Co. booth at the Dairy Show. Inside the walk-in cooler are J. W. Faulks and Joseph Chermak, both of Refrigeration Engineering.

KEY NO. D-1146

For further details on any of the items pictured on this page use the "Information Center" form on page 12, referring to the key number accompanying the picture. Other pictures of the 19th Dairy Exposition appeared in the issues of Nov. 8 and 15.



POINTING OUT THE INNER WORKINGS of Vendo Co.'s new ice cream vending machine is Jack Burlington, sales manager of the dairy division. The vendor offers a choice of three flavors. Interior is refrigerated on three walls, and is insulated on top, bottom, and front. It holds 0° to 5° F.

KEY NO. D-1147



SOMETHING DIFFERENT IN THE WAY OF ice cream serving cabinets is this one by Grand Rapids Cabinet Co., which John T. Curtin shows off at the Dairy Show. Top on this dispensing cabinet is slanted at a 30° angle, with lids opening parallel to the length of the cabinet. Finish is available either in Formica (as shown here) or in porcelain, with stainless steel top and lids. Rolled rims prevent dripping of moisture and spillage.

KEY NO. D-1148

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Being able to interchange coil assemblies saves you time and money, eliminates confusion and delay on every job. Other important J-E advantages include quiet operation, freedom from clogging and their amazingly simple design with only two moving parts.

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Complete interchangeability of the coil assembly is another exclusive feature of the J-E line of Solenoid Valves. Regardless of valve size, from 3 to 400 tons of refrigeration, you need only

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Carelessness In Installing

Belts Can Cost a Few Fingers

Several accidents, involving injury to fingers and hands, have occurred recently during the process of installing or replacing belts on refrigeration compressors, reports R. D. Hollingsworth, international safety director of the Refrigeration Service Engineer's Society.

Frequently one or more of the discharge valves in a compressor will leak slightly and permit the high-side pressure to pass into the cylinder, thereby building up enough pressure on top of the piston to rotate the compressor, he explained.

Should a serviceman have his fingers or hand on the belts or fly-wheel when this occurs he may receive a severe injury and possibly lose some fingers.

The proper method is to loosen the motor mounting bolts and move the motor towards the compressor, so that the new belts will easily slip into place, without the necessity of getting the fingers or hands in a position which could result in injury. The motor can then be positioned so as to provide proper belt tension and alignment.

Donovan Will Represent Kramer In New England

TRENTON, N. J.—William J. Donovan of West Hartford, Conn., has been appointed the New England sales representative for Kramer Trenton Co., it was announced by S. Charles Segal, Kramer's general sales manager.

The New England office is located at 62 LaSalle Rd., West Hartford, Conn.

Donovan, a licensed professional engineer, previously served as director of engineering for Bush Mfg. Co. and its subsidiary, the Heat-X-Changer Co., where he was responsible for all engineering, design, development, and research in heat transfer equipment. He began his career in 1940 with Gibbs & Cox, Inc., of New York City where he served on the staff of the chief engineer.

Donovan holds a B.S. degree in naval architecture and marine engineering from Webb Institute of Naval Architecture and an S.M. degree in marine engineering from Massachusetts Institute of Technology. He also has taken graduate courses in mathematics, economics, and business management.



W. J. Donovan

Kinetic Chemical Announces Opening Of Offices In Chicago, Los Angeles

WILMINGTON, Del.—Opening of district offices in Chicago and Los Angeles to handle sales of its "Freon" fluorinated hydrocarbon refrigerants and aerosol propellants has been announced by du Pont Co.'s Kinetic Chemicals Div.

Both new offices will be located in existing district office quarters of the company's Organic Chemicals Dept.

Norman W. Kent of Wallingford, Pa., recently transferred from the Petroleum Chemicals Div., has been named sales supervisor of the Chicago office (7 South Dearborn St.), under the direction of J. A. Turner, district manager of the Organic Chemicals Dept.

No sales supervisor will be named immediately for the Los Angeles office (2930 East 44th St.), which will function under the direction of A. J. Mease, Orchem district manager.

Severn T. Wallis, who joined du Pont in 1937 and who for the last year has been sales correspondent in the Wilmington office of Kinetic Chemicals, has been assigned to the Chicago office as sales correspondent.

William F. Kelly, who has been general supervisor of the order and clerical section of the Kinetic division, has been named sales correspondent in the Wilmington

office, it has been announced.

Other personnel changes announced by the division include:

Stuart L. Richardson, native of Chicago and for the last six months sales representative in the Wilmington office, to the Chicago district sales office as refrigerant sales representative (manufacturers) in the Detroit area.

C. Earle Kimble, who joined du Pont in 1932 and has been propellant sales representative in the Wilmington area, to Bridgeport, Conn., as propellant sales representative in the New York City and New England areas.

James G. Gordon, III, of Media, Pa., sales trainee in the Wilmington office, to the New York district office as refrigerant sales representative (manufacturers), New York and New England areas.

Douglas H. McKenna of Wilmington, sales trainee in the Wilmington office, to the Kinetic Chemicals Sales Service Laboratory, Chambers Works, Deepwater, N. J.

Frank W. Blodgett, native of South Bend, Ind., and chemist at the du Pont Co.'s Jackson Laboratory, also has been transferred to the Kinetic Chemicals Sales Service Laboratory.

Parlin, Mays Named to Sporlan Field Positions

ST. LOUIS—Sporlan Valve Co. announced recently that R. H. Parlin has joined the company's field sales organization to take over its newly-established Detroit sales office. At the same



J. J. Mays

time, appointment of J. J. Mays to take over Sporlan's Dallas sales office was announced.

Parlin will represent Sporlan in Michigan and the northern portions of Ohio and Indiana. He holds a B.S. degree from Ohio university and has an extensive background in refrigeration and air conditioning sales and engineering. Sporlan's new Detroit office is located at 20479 Dalby Rd., Detroit 19.

The company's Dallas office serves Texas, Oklahoma, Arkansas, and most of Louisiana. Mays, a former instructor at Southern Technical Institute in Dallas, was engaged in air conditioning and refrigeration contracting before joining Sporlan.

To Cool New Apt. Bldg.

WASHINGTON, D. C.—A new eight-story, 231-unit luxury apartment building to be constructed in the 4600 block of Connecticut Ave., N.W., will be completely air conditioned, according to Architect Milton Prassas.

'Weathertron' Dealer

HUNTSVILLE, Ala.—Chaney Refrigeration Co. here has announced its appointment as dealer for the G-E "Weathertron."



R. H. Parlin

Sherwin Borden Named General Manager as A. E. Borden Co. Moves

BOSTON—A. E. Borden Co., Inc., local wholesale distributor, has moved to a recently-purchased building at 1380 Boylston St. which affords improved facilities.

Chester E. Borden, president, said the expansion move was necessary "to meet the needs of our increasing volume."

The company has also announced the appointment of Sherwin T. Borden as vice president and general manager. He is the son of the late A. E. Borden, founder of the company, and a brother of Chester E. Borden. For the past 21 years he has been manager of the Sears Roebuck store in Worcester, Mass. where he established an outstanding record in merchandising and management.

The distributor's new building, described as substantial in size, is near the old location at 176 Brookline Ave. Extensive alterations have been completed to adapt the premises—a former "Super Automotive setup"—to the company's requirements.

Customer access to the parts department has been enlarged. Parking under shelter for many cars is a new feature.

A modern display room is adjacent to the offices and stockroom. Here dealers can inspect Taylor ice cream equipment, "Scotsman" ice making machines, "Temtron" residential air conditioners, and many other lines distributed by Borden.

Copeland Releases 28-Page Copelametic Service Manual

SIDNEY, Ohio—Copeland Refrigeration Corp. has released a new service manual on its "Copelametic" accessible hermetic motor-compressor.

This 28-page manual, 8½ by 11 in., is divided into two main sections covering electrical and mechanical service data. The booklet is replete with charts, graphs, and diagrams explaining how to keep the equipment at top operating efficiency. There are 40 illustrations.

The manual also contains an up-to-date list of Copeland's over 130 jobbers. It is available from the nearest Copeland wholesaler or the company.

Resse To Represent Mfrs.; Retains Facilities of Myers

HOUSTON, Texas—Olan C. Reese announced recently that he will retain the office and warehouse facilities of Chas. A. Myers Co. which has gone out of business, and will represent a number of manufacturers previously represented by the Myers firm.

Reese said he will represent Superior Valve & Fittings Co.; Standard Refrigeration Co.; Packless Metal Hose, Inc.; Silco, Inc.; Deansteel Products Co.; and Atlantic Chemical & Equipment Co.

Sokalski Files Firm Name

BUFFALO—A business name has been filed in the Erie County clerk's office for Ace Refrigeration & Air Conditioning Service, 202 Bransdale, West Seneca, by Paul J. Sokalski.

Let's get the facts straight about driers



IT SEEMS that the time has come to get a few facts straight about refrigeration driers . . . about what they will and won't do . . . and the validity of some of the claims made for different types. What is happening in the drier field has happened, and will continue to happen, to every group of products manufactured by American Industry . . . and the malady is best described as "exaggerated claimitis." Periodically it creeps into everything from motor oil to television and we're sure you've been well bombarded by the "loud claimers" at one time or another. You know the kind of stuff we mean . . . "use super pills and you won't have to change oil in your car for 50,000 miles" . . . "cures everything with just one bottle" . . . "does a bigger, better, faster, cheaper job than any other tool on the market." When basic facts are distorted to make a plausible story, "exaggerated claimitis" has set in.

Now let's talk about driers. A drier, dehydrator or call it what name you will, is hardly as mysterious in operation as a nuclear reactor. It's a simple, highly important device that is essential to the proper operation of any refrigeration system. Its job is to take out the undesirable elements in refrigerants. The Mueller Brass Co. has been making driers for over 35 years and naturally we feel that we know a little bit about them. With over 3,000,000 of them in service, we feel that our driers must be fairly good from all viewpoints.

When we say that a drier is rated at 5 h.p. we mean just that . . . not 4¾. When we say our driers are skillfully engineered and carefully produced we mean it. We want you, as our customers, to believe what we have to say . . . which now brings us around to the word "acid" which seems to be a brand new discovery to everybody in the business.

Moisture is the biggest enemy of successful refrigeration performance . . . with sludge next in line. Acid, which can form only under certain set circumstances, is a comparatively minor problem. But, since there seems to be a real

scare campaign on the evils of acid, let's delve a little further into the subject. We've been well aware of the fact (for the past 35 years, anyway) that hydrochloric acid can sometimes form through the hydrolysis of Freon and, naturally, it should be removed from the refrigerant. Removal of such acid is merely a matter of course, not an all-out battle such as some manufacturers seem to think is necessary. For acid removal, the PA 400 Super Silica Gel used in Mueller Brass Co. driers is 100% efficient . . . which makes it a little hard to beat. Couple this with the fact that the PA 400 provides 98% more drying capacity and it would seem that both the moisture and acids have been well handled. When it comes to the second "ugly" word . . . "sludge," we feel that the cone-screen filter-strainer does a pretty fair job because its filter area has not only been increased by 30% (and it was big before!) but also gives 7 times the cleaning capacity of the filter or strainer device used in ordinary driers.

Now let's look into drier designs for a moment. Basically a drier is a cylinder containing a desiccant, and has varying methods of filtering and straining the refrigerant which flows in one end and out the other. Straight-through flow naturally presents less restriction in the line . . . you can put all sorts of angles and bends in a drier but you aren't helping the cause one bit. The drier is to help not hinder . . . and a straight line is the shortest and least restricted distance from the inlet end to the outlet.

We have touched on many things in this discussion of driers, but, as we said before, there's nothing so mysterious about the operation of a drier that warrants raising a lot of fuss and feathers about that bogey-man, "acid." It is purely a severe case of "exaggerated claimitis" because acid never was allowed to become important when Mueller Brass Co. driers were on the job.

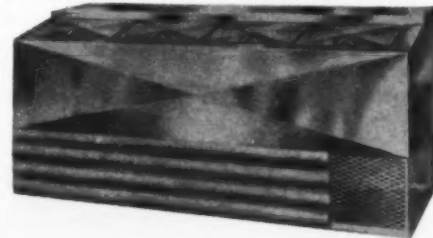
We hope we've gotten a few facts straightened out, and thanks for your reading attention . . .

The Mueller Brass Co.

MUELLER BRASS CO.

PORT HURON 9, MICHIGAN

"A CASE OF COOL JUDGMENT"



**FLO-COLD
DRINKMASTER
STAINLESS STEEL
CUBER-COOLER.**

SOLD THRU DEALERS ONLY.
WRITE

**United Refrigerator Engrs.
MENOMINEE, MICH.**

AVAILABLE IN SIZES 4 TO 10 FT.

Prediction!**30-40% of G-E Central Plant Residential Systems Installed In '55 To Be Air Cooled**

CHICAGO—About 30 to 40% of the central plant residential air conditioning systems installed next year by the General Electric Co. will be air cooled, F. J. Van Poppelen, general manager of General Electric's air conditioning division, estimated here recently.

He expects that for the entire industry, installations will run about 25% air cooled. Growing water shortages in many parts of the country will accelerate this trend, he indicated.

The larger self-contained commercial and industrial air conditioning systems, he said, will probably continue to be water cooled because of their greater efficiency and economy of operation.

He estimated that currently about 10% of the self-contained commercial air conditioning systems are air cooled and 90% water cooled.

Seeing a great future for the

heat pump, Van Poppelen said that General Electric's heat pump business has doubled every year in the three years the company has been marketing a unit and he expects volume to more than double next year.

Largest heat pump now made by G-E, he added, is a 7½-ton unit that could adequately heat a 10-room home in the midwest.

Noting that some 35 to 40% of the heat pumps manufactured now go into commercial and industrial establishments, he expects an even bigger swing to the residential market within the next few years.

During 1954, Van Poppelen estimated, the sale of General Electric's commercial, residential, and industrial heating and cooling products rose more than 50% over 1953. He expects another 50% increase during 1955 and "more than double" the sale of residential central plant air conditioning systems during the coming year.

Airtemp 'Spacesaver' Promotion Offers Free Pool Table During 'Game Room Month'

DAYTON—Home modernization is being spotlighted by Chrysler Airtemp dealers throughout the nation during November, which has been proclaimed "Game Room Month."

"Millions of American homes, modern to the nth degree in other respects, are still served by antiquated heating systems," stated E. A. Nash, merchandising manager for Airtemp.

"To emphasize the space economy feature, November 'Spacesaver' purchasers will receive a special gift from their Airtemp dealer, a sturdy, attractive pool table. Therefore, they will be well on their way to furnishing the home game room made possible through heating plant modernization.

"Our dealers have scheduled Game Room Month to point out to homeowners what the replacement of obsolete furnaces can mean in terms of greater year-round comfort, fuel economy, and additional living area.

"The latter point, additional living area, will be stressed by Airtemp dealers in their local promotions during November. In other words, they will dramatize the fact that every home can have a

sizable recreation room in the space made available when the huge heating unit of yesteryear is replaced with an up-to-date, more efficient, compact year-round conditioner.

"For instance, Airtemp's newly introduced Spacesaver, providing both heating and cooling, requires only inches of floor space."

Marketing Unit Formed By American Standard

NEW YORK CITY—American Radiator & Standard Sanitary Corp. has announced the formation of a marketing and commercial development department.



D. D. Couch

Joseph A. Gra-
zier, president,



D. J. Quinn

said the new department would be concerned with the marketing activities and development programs of the various operating divisions of American Standard.

He also announced that D. D. Couch has been named vice president, marketing and commercial development, and placed in charge of the new department.

Couch previously had headed the sales department of the corporation's Plumbing & Radiator Heating Div. He joined American Standard in 1925 as an auditor, and has been engaged in sales work since 1928. He has been vice president, sales since 1944.

Couch is succeeded in that position by Daniel J. Quinn, who previously was general sales manager of the Plumbing & Radiator Heating Div.

Nashville Firm Forms Residential Department

NASHVILLE, Tenn.—W. E. McLeod, president of Central Air Conditioning & Heating Co., has announced the establishment of a complete residential air conditioning department as a result of "the rapid growth of the home air conditioning market in this particular territory."

Named to head the department was Jay Massman, former district manager in Tennessee and North Carolina for Chrysler Airtemp. He joined Central Air Conditioning in 1951, and has designed, engineered, and sold more than 100 home installations, McLeod pointed out.

Buchen Co. Named To Handle Unarco Advertising Program

CHICAGO—Union Asbestos & Rubber Co. has announced the appointment of Buchen Co. of Chicago to handle its entire advertising program.

General news, shelter, and trade publications will be utilized in a campaign covering the company's Heating and Cooling, Fibrous Products, and Equipment Specialties Div., according to an announcement made by Fergus Mead, who is account supervisor, and Charlie Parthum, account executive.

Residential Air Conditioning**Frigidaire Unit Operates with Forced Air Furnace**

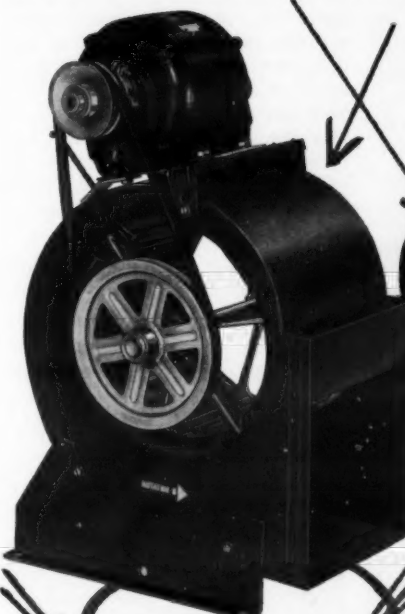
DURING A PAUSE in the program at a recent three-day commercial refrigeration and air conditioning sales meeting in Dayton of top executives of Frigidaire's national selling organization, W. F. Switzer of the factory sales staff (right), points out features of a newly introduced air conditioner to S. H. Zoellner, Los Angeles branch manager (left), R. W. Pocock, St. Louis branch manager. It operates in conjunction with forced-air furnace.

Wendt Sees Upturn

BUFFALO—Henry W. Wendt, chairman of the Buffalo Forge Co., reported that there has been a steady improvement in orders

throughout the last few months.

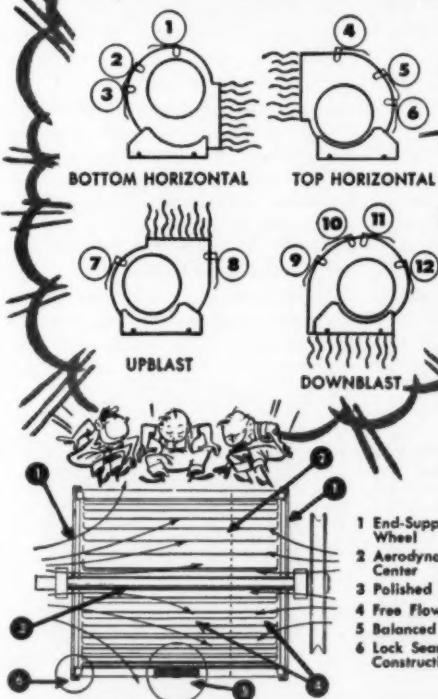
"Operations are still busy," said Wendt. "We see signs of a steady upturn. Business for the last quarter looks good for the heavy industries."

Here's a Completely New Idea in Blowers...

Viking

UNIVERSAL BLOWER with LOCK-ON Feet

... Offering Lower Unit Cost ...
Smaller and More Flexible Inventories
... Fast Delivery ... Shorter Lead Time

Here's How It Fills Your Needs Exactly

- Adaptable to all standard installation positions
- Lock-on foot design insures speedy production line assembly
- Permits twelve conventional motor mounting positions. Motor bracket designed so motor can be mounted on either side.

(Wheel shaft extends far enough on each side of scroll to permit pulley wheel to be mounted on either left or right side of blower.)

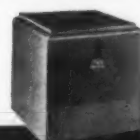
- Basic Scroll, Motor Mounting Bracket and Blower Wheel utilizes every new structural design improvement recently incorporated in conventional Viking Blowers to permit you to ship them installed, to expect many years of quiet trouble-free performance in your furnaces or air conditioners.

Rugged Wheel Design ... Lock seamed end supports give blower wheel the strength needed to permit it to reach its destination point in tip-top condition. The end support principle and Vikinetic balancing make these units so quiet they have amazed everyone.

Furnace and Air Conditioning Manufacturers ...
Contact Your Viking Representative Today.

Viking

Air Conditioning
DIVISION OF THE NATIONAL RADIATOR COMPANY
5601 Walworth Ave. Cleveland 2, Ohio



Viking Blower Packages



Viking Blower Assemblies



Viking Humidifiers

Other Viking Products
Dehumidifiers
Attic Fans
Window Fans



"My Typhoon District Manager is always Johnny-on-the-spot," says Don Kissell (left), Typhoon Los Angeles dealer.

TO GET ON THE MOST PROFITABLE FACTORY-DEALER TEAM IN THE BUSINESS, TIE UP WITH

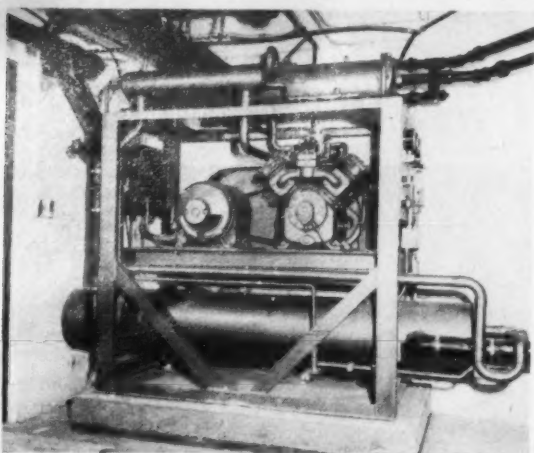
TYPHOON
AIR CONDITIONING

505 Carroll St.,
Brooklyn 15, N. Y.

• COMMERCIAL AIR CONDITIONERS, 2 TO 35 TONS
• RESIDENTIAL YEAR-ROUND UNITS FOR GAS OR OIL
• ROOM AIR CONDITIONERS, ½, 1, 1½, 2 T.P.P.
• PACKAGED HEAT PUMPS, RESIDENTIAL & COMMERCIAL

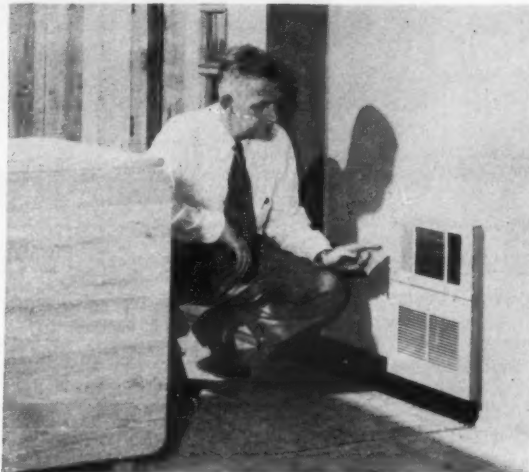
TOPFLIGHT ENGINEER WANTED FOR SOUTHERN CALIFORNIA

Excellent position with well-established firm. Must be graduate engineer with experience in design and layout of commercial refrigeration and air conditioning systems. Advancement opportunity limited only by one's ability, initiative and ambition. Replies considered strictly confidential. Send complete resume of education, experience and present compensation to BOX A5095, Air Conditioning & Refrigeration News.



HEART of the summer conditioning cycle is this CFD-15-35 Schnacke Thermatrol Water Chiller located in the utilities room of the apartment house basement.

DISTRIBUTION of air from the chilled water system and hot water system is made through strategically located Hydraline Units in each apartment unit.



Hooking Up Packaged Water Chiller with Boiler Gives Apt. Bldg. Year-Round System

BOONVILLE, Ind.—Year-round air conditioning has been provided for the new two-story Folsom apartment building here by hooking up a Schnacke "Thermatrol" packaged water chiller with a hot water boiler.

The system cools and heats eight two and three bedroom apartments through individually controlled Hydraline wall units located in each apartment and painted to match adjacent wall surfaces. The Schnacke model CFD-15-35 water chiller is located in the utilities room of the apartment house basement.

H. B. Folsom of the Building Supply Co. here, who built the apartment house, claims that the rental requirement for each unit is no more than similar buildings now being constructed in the vicinity and which have no year-round comfort facilities to offer.

The cooling unit is part of Schnacke's Thermatrol line of standard and model "S" (Specification) packaged water chillers

made in sizes from 10 to 60 tons. These units, according to Frank D. Klein, Schnacke sales manager, are completely self-contained and are equipped with everything required for installation and operation even to the complete operating charge of "Freon."

He pointed out that one of the advantages both to the contractor and customer is that the entire assembly is covered by "unit responsibility" for warranty and guaranty.

Schnacke, he said, also offers a complete selection of remote air conditioning units for split systems that can be packaged in a sale along with the chilled water units, thus carrying the unit responsibility idea still farther.

American Blower Names Wilson Credit Manager

DETROIT—R. D. Andrew, secretary of American Blower Corp., has announced the appointment of Deane H. Wilson as credit manager.

Wilson will report directly to Andrew, who formerly handled this work.

Wilson is a graduate of the Dartmouth Graduate School of Credit and Financial Management. He worked in American Blower's Credit Dept. from 1941 to 1949. At that time he left the company to take a position as credit manager of Evans Products Co. in Plymouth, Mich. He held this position until taking over his new responsibilities with American Blower.

Korvette Store To Get 180 Tons of Cooling with Steam Coils for Heating

NEW YORK CITY—The seventh and largest department store in the E. J. Korvette Co. chain will be established in a fully air conditioned two-story building in a \$3,500,000 suburban shopping center planned for Carle Place, Long Island, by Kane-Schwartz Enterprises.

The contract for air conditioning has been awarded to Mid-Island Utilities Co., Inc. of Westbury, and the heating contract to Metalcraft Development Corp. of Amityville, which will install four United States Air Conditioning Corp. factory-assembled central station units and two steam boilers for all-year air conditioning.

The 90,000-sq. ft. Korvette building, designed by Scheiner & Swit, architect, will occupy a seven-acre portion of the 18-acre shopping center site. Uman Construction Corp. is the general contractor and completion is scheduled for the late fall of 1954.

A total cooling capacity of 180 tons will be provided by the four UsAirco "Refrigerated Kooler-air" units. The units will be equipped with steam coils for winter heating.

Each of the four units will serve a separate building zone, with two 40-ton units conditioning the main floor and two 50-ton RK's, the second floor. The entire plant will be located in a basement equipment room and, because of built-in evaporative condensers, will require no equipment on the roof.

Korvette, which operates stores in New York City, Westchester, and Nassau counties featuring appliances and hard goods merchandise, will add a complete line of soft goods and clothing in the new branch.

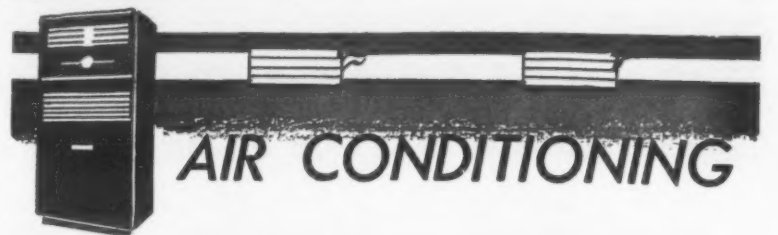
Sturtevant Names Rogers Manager of Advertising And Sales Promotion

HYDE PARK, Mass.—Walter T. Rogers has been appointed manager of advertising and sales promotion for Sturtevant Div. of Westinghouse Electric Corp., it was announced recently by J. C. Thompson, general sales manager, to whom Rogers will report.

The Sturtevant Div. manufactures all types of air-handling equipment including general purpose and heavy-duty fans, heating, ventilating, and air conditioning apparatus, and the "Precipitron" electronic air cleaner.

Rogers was educated at Emerson college and Staunton Military college, where he was graduated in 1936. He spent seven years as assistant advertising manager of Raytheon Mfg. Co. and was later advertising manager of that company's Radarange Div.

He joined Sturtevant as an advertising representative in 1952. In February, 1954 he was appointed supervisor of the Advertising and Sales Promotion Dept.



Electric Utilities Urged To Stimulate Public Interest In Heat Pump by Angier

NEW ORLEANS—The electric utility industry was asked to energetically promote the heat pump as a means of stimulating public acceptance of the unit in a speech made before the Southeast Electrical Exchange in New Orleans recently.

"Those utilities who are most aggressively promoting the heat pump have realized that while the specific parts of the heat pump are not new, the operating characteristics and application requirements for the unit are new," M. S. Angier, heat pump product manager of Westinghouse Electric Corp., told the utility men.

"Public acceptance," Angier said, "would be even more enhanced and the market would more rapidly increase if all utilities would provide prospective customers with engineering service as to the proper size of the heat pump and the minimum specifications for wiring and duct and house insulation."

A fully-staffed sales application and service school will be started shortly to which all our distributors will be required to send selected personnel. This school will be available to utility personnel, without tuition charge, and they will be free to take all or any portion of the course.

To some of you, Angier said, this all out promotion may appear too expensive to be considered, yet the history of the market development of the electric range, water heater, and refrigerator shows that only when the affected utilities aggressively promoted and in many instances sold these appliances did the public acceptance and sales volume skyrocket.

Gets Incorporation Charter

NEW ORLEANS—Charter of incorporation has been granted George J. Miller Air Conditioning, Refrigeration & Heating Co., Inc., 959 S. Clark. Capital stock, \$30,000.

ANOTHER
dip
"PLUS!"

Galvanizing

AFTER FABRICATION
ON ALL

PERMA-FAN

EVAPORATIVE CONDENSERS



Installation by Key Refrigeration, Los Angeles.

IT'S SERVICE-FREE PERFORMANCE with Perma-Fans—ever since D-H pioneered the blow-thru principle of operation, back in 1937!

NOW, new and proven advances give you an expanded Perma-Fan line:

- In tonnage ratings from 5 to 105
- For indoor or outdoor installation
- Choice of refrigerants: Freon, Ammonia
- "Hot Dip" galvanizing on ALL surfaces



Particulars? Request Catalog
PF C-3.30.

drayer-hanson
INCORPORATED

3301 MEDFORD STREET, LOS ANGELES 63, CALIFORNIA
(A Subsidiary of United States Radiator Corporation)

GENUINE JOE SAYS:

**REPLACEMENT
BRUSHES MUST BE
THE SAME AS
THE ORIGINALS...
USE WAGNER!**

Send for
Catalog
MU-40

WAGNER ELECTRIC CORPORATION
6471 PLYMOUTH AVE., ST. LOUIS 14, MO.

OVER 50,000,000 RANCO CONTROLS IN USE!

RANCO controls give dependable, trouble-free service. That's why more than 50,000,000 are now in use throughout the world. RANCO controls are designed and precision-built by refrigeration specialists to provide accurate control for every job. They eliminate call-backs and increase your profits. And remember this . . . RANCO controls are available for almost 5,000 replacement installations.

010-1402
Low Pressure
Cut-In Commercial
Control

Like all Ranco commercial controls, compact and sturdily constructed, and adaptable to installation requirements.



Ranco Inc.

COLUMBUS 1, OHIO

WORLD'S LARGEST MANUFACTURER OF REFRIGERATION CONTROLS

McKibbin Looks Into Future--

(Concluded from Page 1, Col. 3)

McKibbin first outlined the economic and social factors that helped sell 338,000,000 appliances in the last five years. He also pointed out that many of these appliances were sold because the electrical industry is continuously developing and promoting new products for the home.

ONLY 19 APPLIANCES IN '30

"In 1930 there were 19 different appliances," he noted. "In 1940 there were 36 appliances. . . . By the end of 1953 there were a total of 54 appliances on the market. And the end isn't in sight."

McKibbin continued: "These 338 million appliances have put billions of dollars into the cash registers of the electrical industry. At the same time, they have made utility meters spin."

"In 1930 the average kilowatt-hour consumption per home was 547. By 1940 the average home used 934 kilowatt-hours a year. By the end of 1949 the average was 1,643. And last year, 1953, the average residential consumption was 2,330 kilowatt-hours."

Turning to the appliance market of the future, the speaker stated:

"We have been taking a long look ahead . . . ten years, in fact . . . through 1963. Here is the way it looks."

"By 1963 there will be more people. Twenty-five million more in the United States. No matter how you look at it, a market is people. What these people do and think has a big effect on our future."

SIX MILLION MORE FAMILIES

"One obvious thing our bigger population will be doing is forming more families. Six million more families 10 years from now. . . . More families to buy appliances and live electrically."

"There will be more people on the move, too. . . . You can be sure that about 3½ million families will move somewhere each year."

"Each move represents a big opportunity for selling appliances. A recent survey of families that purchased appliances within the past five years showed that moving was the first reason for the purchase of both ranges and refrigerators. 20.8% of the refrigerators were purchased for this reason."

"Another thing . . . in 1963 people will have more money to

spend. In fact conservative studies indicate they will have at least 52 billion more dollars in personal disposable income. . . .

"What will they do with more money? One thing sure . . . they'll be buying more new homes. The fact is, there will be more than a million new homes built each year. More than 10,600,000 new opportunities to sell appliances and TV sets in the next 10 years."

"In this same 10-year period, hundreds of thousands of families will be adding more appliances in existing homes."

"Forgetting the replacement market entirely, there will be an average of eight additional new appliances sold to every home in the country during the next five years. Surely the climate looks favorable for the sale of all types."

But, McKibbin cautioned, competition in the next 10 years "will be sharper than ever before. Furniture, cars, clothes, travel, and gas appliances make up the primary competition of our electrical appliance industry. Against these competitive packages, however, we have three big benefits that we are selling the American home."

He listed these as more convenience, more comfort, and home entertainment. Regarding the former, he said that in 1963 "we estimate homes will be using 109 billion kilowatt-hours of convenience."

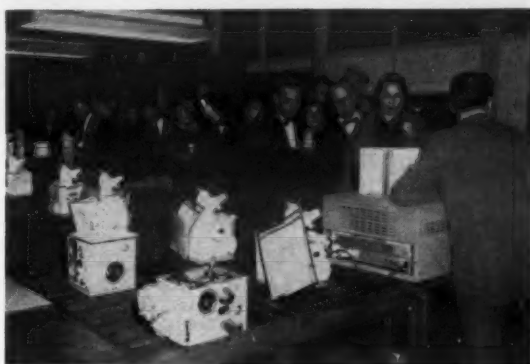
BIGGEST GROWTH SEEN FOR AIR CONDITIONING

Regarding comfort, McKibbin stated: "Fans, bed coverings, dehumidifiers, residential air conditioning, and home heating. All of these businesses will grow, but it looks now as though the most spectacular growth in the next 10 years will be air conditioning."

"In 1953 the utilities sold 5 billion kilowatt-hours to make the homes of our customers comfortable. Ten years from now we estimate they will sell 34 billion kilowatt-hours to do this job."

"Because of the impact of two relative newcomers in the home appliance field—television and air conditioning," the speaker went on, "I thought it would be interesting to compare their future with one of the basic loads of our promotional partner, our electric utility industry."

"In 1953 the residential lighting



VISITORS in department where Airtemp makes tank range finder.



R. J. SCHUMANN inspects one of the first car conditioners from the firm's new assembly line.

10,000 Visitors Help Airtemp Mark 20th Anniversary

DAYTON—Founded by Walter P. Chrysler in 1934, the Airtemp Div. of the Chrysler Corp. marked its 20th Anniversary with a two-day Open House, Nov. 13 and 14, attended by some 10,000 people.

In the two decades since its founder decided to enter a new industrial field, the Dayton firm has grown to become one of the nation's largest manufacturers of air conditioning and heating equipment.

Airtemp's Open House celebration will also be the occasion for the formal opening of two new plant additions completed recently as part of a multi-million dollar expansion program initiated in the fall of 1953.

load was 33 billion kilowatt-hours. The combined TV and home air conditioning load was only 9.5 billion.

"The lighting load will continue to grow. In 1963 it will be 68 billion kilowatt-hours. But by that time these two relative newcomers will amount to a load of 42 billion kilowatt-hours, or two-thirds of the lighting load."

McKibbin noted that the industry says 428 million appliances should be sold in the next five years.

CAN WE SELL 428 MILLION APPLIANCES IN 5 YEARS?

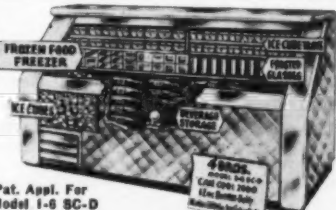
"Can we do it?" he asked. "Actually," he continued, "there are several questions that we must answer."

"Can manufacturers produce 428 million appliances in the next five years? In the last five years the appliance, radio, and television manufacturers had a total factory square foot area of 54 million. That's a sizeable plant. . . . But in 1953 the factory square foot area of the industry had been stepped up to a total of 89 million square feet, an increase of 65%."

"The appliance industry has expanded 65% while the electrical industry as a whole was expanding 45%. That's why you hear so much about the need for creative selling today, because the appliance industry has to sell nearly half again as hard as the rest of the industry."

ELECTRIC ENERGY MAY BE DETERRENT

"No, it can't be the lack of manufacturing facilities that will keep us from this goal of 428



Pat. Appl. For Model 1-6 SC-D

4-BROS. New 1955 All-Purpose 5-IN-1 ICE CUBE MAKER & Comb. BEVERAGE COOLER

1. Makes 250 lbs. ice cubes daily. 2. Cools 2000 12-oz. bottles daily. 3. Frost glasses shelf or freezer. 25" F. 4. Storage ice cubes or cocktail bottles. 5. Defrosts automatically. 6. Easy-Out trays. 7. 3-YEAR Factory Warranty on unit. 8. Gleaming #430 Stainless steel interior and exterior. Remote, no unit, \$42.50. In. ft. Comp. self-con., \$63.1. ft. Size: 4 to 10 Ft. Long, 27" W., 38" H.

4 BROTHERS

REFRIGERATION MANUFACTURING CO.

1423-31 So. 9th St., Philadelphia 47, Pa. Exclusive Franchises available to dealers.

Previously located in Detroit, Airtemp moved to Dayton in 1936, occupying the old Maxwell plant. A new, modern air conditioned plant was completed in 1947. However, as the demand for Airtemp products increased so did the need for additional facilities. The plant was enlarged in 1951 and two major buildings, providing in excess of 150,000 sq. ft. of additional floor space, have been completed in recent weeks.

Airtemp now manufactures extensive lines of water and air-cooled "packaged" air conditioners, radial condenser and compressor units, gas and oil furnaces, combination year-round home conditioners, room air conditioners,

in addition to automobile air conditioners.

Since 1951, Airtemp has participated heavily in the nation's defense program, producing in volume for the Army the highly intricate tank gun range finder.

"We are hopeful that as many of our friends as possible will visit our plant during our 20th Anniversary Open House," comments C. E. Buchholzer, Airtemp president. "Our facilities, including for the first time our range finder production area, will be open for inspection. Our manufacturing methods and wide variety of products, many of which will be on display, I am certain will be of interest to all visitors."

million. Will it be a shortage of electrical energy?

"In the last five years electric utilities had a total generating capacity of 63 million kilowatts. Today utilities have a capacity of 103 million kilowatts. They are still expanding. So it won't be lack of utility capacity that will hold us back."

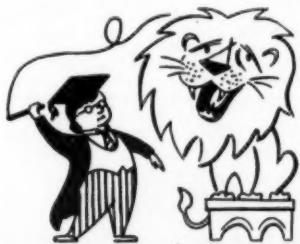
"But there is one big remaining question that must be answered if we accomplish our goal. . . . This is the critical lack of adequate wiring."

"If our industry really solves

the adequate wiring problem . . . if we appliance manufacturers sell and sell hard . . . if we keep our designs and engineering developments on a dynamic basis . . . we can sell 428,000,000 appliances in the next five years."

If this goal is achieved, McKibbin said, "we shall be well under way to doubling kilowatt-hour consumption again over the next 10-year span, just as it has in the last 10 years. Looking ahead to 1963, that will mean the average will be about 5,000 kilowatt-hours per home."

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MANY METALS

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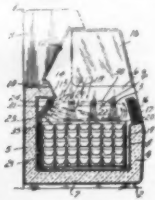
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PATENTS

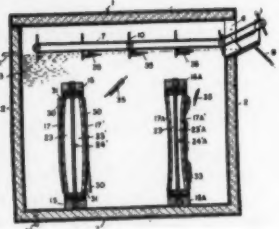
Week of July 13

2,683,355. OPEN-TOPE REFRIGERATOR DISPLAY CASE. Walter Schmidt, Boe-land Park, Kan., assignor to Koch Butchers' Supply Co., North Kansas City, Mo., a corporation of Missouri.



1. A display case having front, rear and end walls and a top wall terminating inwardly from the rear wall in the direction of the front wall to cooperate with upper portions of said side and front walls in forming an opening to a display compartment within said case, refrigerating elements in the display compartment having upper portions terminating substantially at the surface level of goods to be contained in said display compartment, and an auxiliary refrigerating element extending along the rear wall and having a substantially flat readily conductive surface inclined upwardly from the rear wall substantially at the level of said upper portions of the refrigerating elements and terminating substantially at the terminal edge of said top wall in direct contact by exterior air that enters the open top of the compartment to relieve said entering air of moisture in the form of frost on said surface of the refrigerating element for diverting the dried air downwardly over said surface of the goods for circulation within said open top by convection currents, said surface of the auxiliary refrigerating element being arranged relatively to a horizontal plane through said case for absorbing heat reflected from the surface of goods in said plane.

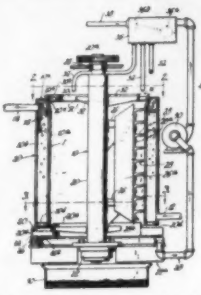
2,683,356. METHOD AND APPARATUS FOR PRODUCING LAMINATED SHEETS OF ICE, INCLUDING AUTOMATIC CONTROLLED CYCLING MEANS. Charles M. Green, Jr., Pensacola, Fla., assignor to Francis Wm. Taylor, Pensacola, Fla.



1. That process of quick freezing ice within a container which consists in locating within said container having fluid-tight walls, a fluid-tight chamber containing therein refrigerating coil means and a pressure fluid, and having a flexible deformable wall lying against the refrigerating coil means, said coil means being in heat exchange contact with said walls during the time said walls are subjected to deformation, filling said container with a freezable liquid to a point where the liquid therein substantially covers said deformable wall, introducing a refrigerating medium through said coil means while permitting a portion of said liquid to freeze and form an ice layer on said deformable wall as it lies in heat exchange contact with said refrigerating coil means, forcing said pressure fluid into said chamber against the inside of said deformable wall until said wall presents a convex surface to said freezable liquid while in heat exchange relation to said coil means, removing pressure from said wall until it presents a concave surface to said freezable liquid while in heat exchange relation with said coil means, permitting the formation of a fresh layer of ice on said deformable wall, again forcing said pressure fluid into said chamber and against said deformable wall until fractionation again occurs, and continuing the operation by alternately flexing said wall in one direc-

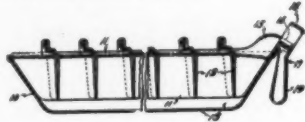
tion and then the other to cause laminated ice layers to be released from said deformable wall and float to the surface of the freezable liquid, and removing the same therefrom.

2,683,357. FLAKE ICE MAKING MACHINE. Edward J. Albright, Chicago, Ill., assignor to Akshun Mfg. Co., Chicago, Ill.



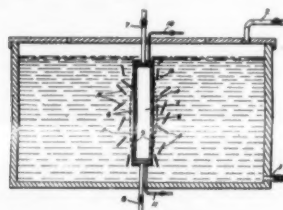
1. A rain collecting mechanism for a flake ice making machine of the type having a vertical freezing cylinder over which water is discharged and in which ice removing means dislodge ice along a moving element, the mechanism comprising: a gutter underlying the lower edge of the cylinder and mounted to move in unison with the ice removing means; the gutter extending about the greater portion of the periphery of the drum and defining a window extending circumferentially in the regions adjacent the ice removing means to avoid catching falling ice flakes; the gutter further having an outlet located in radially spaced relation to the region of ice fall; and a fixed water collecting gutter underlying the outlet at all positions of travel.

2,683,358. ICE TRAY GRID. Robert Lay Hallock, Larchmont, N. Y.



1. An ice tray with a grid having a center wall intersecting a series of resilient cross walls each with portions projecting upward and outward at their top edges by which the grid is suspended in the tray from its top edges with the bottom edges of the grid spaced from the bottom of the tray and which projecting portions form finger holds to flex the cross walls to release ice therefrom.

2,683,359. ICE-MAKING METHOD AND APPARATUS. Charles M. Green, Jr., Pensacola, Fla., assignor to Francis Wm. Taylor, Pensacola, Fla.



1. That process of quick freezing an ice block within a container which consists in locating within said container having fluid-tight walls, a fluid-tight chamber containing therein refrigerating coil means and a pressure fluid and having a flexible deformable wall lying against the refrigerating coil means, filling said container with a freezable liquid to a point where the liquid therein substantially covers said deformable wall, introducing a refrigerating medium through said coil means while permitting a portion of said liquid to freeze and form an ice layer on said deformable wall as it lies in heat exchange contact with said refrigerating coil means, forcing said pressure fluid into said chamber against the inside of said deformable wall until said wall expands and the ice sheet thereon fractionates and the ice fragments float to the top of the freezable liquid, removing pressure from said wall until it assumes its original position in heat exchange relation with said coil means, permitting the formation of a fresh layer of ice on said deformable wall and again forcing said pressure fluid into said chamber and against said deformable wall until fractionation again occurs, and continuing the operation until the ice fragments in said container adhere to each other and assist in freezing the remainder of the liquid to form a block of ice in said container.



Government Contracts

PROCUREMENT INFORMATION

The following is a list of proposed procurements issued by the various indicated U. S. Government procurement offices. This list is compiled and made available daily on a free pick-up basis. Prospective bidders may obtain complete bid sets by a request to the purchasing officer under which the purchase is listed in this Synopsis. Be sure to identify completely the bid invitation you wish by including in your request the item description, the invitation number or reference number and the opening date.

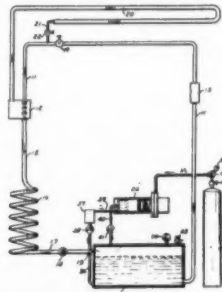
DEPARTMENT OF DEFENSE

It is not necessary to refer solely to the issuing office for additional data on a bid invitation issued by any of the following U. S. Army Ordnance Offices: Ordnance Tank Automotive Center; Detroit Arsenal; Frankford Arsenal; Picatinny Arsenal; Raritan Arsenal; Ordnance Ammunition Center, Joliet, Ill.; Rock Island Arsenal; Springfield Armory; Watertown Arsenal; and Watervliet Arsenal. Complete information on any purchase listed by any of those offices alone can be obtained from the Ordnance District Office nearest you. Its address is on file in your nearest Department of Commerce Field Office. Do not ask an Ordnance District Office for information on a purchase unless it is listed by one of the above-named offices.

Invitations for Bids numbers will be followed by the letter "B." Requests for proposals or quotations will be indicated in this column by the letter "Q," or, if numbered, the number will be followed by the letter "Q."

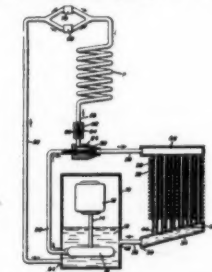
Description	Quantity	Invitation No.	Opening Date
General Stores Supply Office, 700 Robbins Ave., Philadelphia 11, Pennsylvania			
Valve expansion for refrigeration service automatic expansion single diaphragm type forged brass body with inlet strainer Detroit Lubricator Co. unit No. 89200 or equal.	144 ea.	155-496-55B	3 Dec 54

2,683,360. REFRIGERATION SYSTEM. Ragnar A. Norbom, Alexandria, Va.



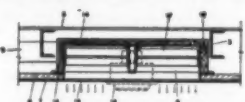
3. In a refrigeration system of the type in which a refrigerant evaporator is supplied with liquid refrigerant from a refrigerant storage tank, means for maintaining pressure on the system comprising: a source of high pressure inert gas; a pump with cylinder having a piston slidably mounted therein; a refrigerant expansion chamber; means including a check valve connecting the lower portion of the refrigerant storage tank to said chamber permitting flow only from the tank to the chamber; conduit means connecting said chamber to said cylinder on one side of said piston; means including a conduit and a check valve connecting the same side of said piston to the upper portion of said storage tank permitting flow only from said cylinder to said tank; means connecting said source of high pressure inert gas to said cylinder on the other side of said piston, said means including a valve within said cylinder; means carried by said piston for opening said last mentioned valve when said piston is forced to one end of the cylinder by expanded refrigerant from said chamber; and means for closing said valve when said piston is forced to the opposite end of said cylinder by expanding inert gas from said source.

2,683,361. JET OPERATED REFRIGERATOR. Raymond Bldgley, Detroit, Mich.



1. A refrigeration system comprising a receiver tank, a quantity of liquid refrigerant partially filling said receiver tank, an evaporator, a supply conduit connected between the lower portion of said tank and said evaporator, a throttling device interposed in said conduit between said tank and said evaporator, a pump submerged in the liquid in said tank, a driving motor in the upper portion of said tank, a driving connection between said motor and said pump, a jet nozzle, a pressure conduit extending from said pump to said jet nozzle, a housing surrounding said nozzle, a conduit extending between said evaporator and said housing, a condenser including a top and a bottom header, a plurality of cooling tubes extending between said headers, a conduit communicating said bottom header with the lower portion of said tank.

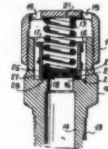
2,683,408. CONDITIONED AIR DISTRIBUTION SYSTEM FOR SHIP CONSTRUCTION. Seymour W. Brown, New York, N. Y., and Robert Tate, Millbrae, Calif.; said Brown assignor to Carrier Corp., Syracuse, N. Y., a corporation of Delaware. Application March 18, 1949, Serial No. 82,242. 6 Claims. (Cl. 98-40.)



2. In a system for distributing conditioned air to public spaces of passenger vessels, the combination of frames extending horizontally of the ship, an enclosed metallic casing having an inlet and an outlet, disposed between adjacent frames, and adapted to discharge conditioned air, through the outlet thereof, in a public space of the vessel, a duct con-

necting the inlet with a source of supply of conditioned air, acoustical material forming the ceiling for the space to be conditioned, a perforated covering extending over the outlet of said metallic casing and below said acoustical material so as to define a plenum chamber with said casing, said covering permitting penetration of sound waves to the acoustical material, said plenum chamber discharging conditioned air downwardly through the perforated covering into the space to be conditioned, and means for controlling the quantity of air in the plenum chamber.

2,683,464. RELIEF VALVE SEAL. Theodore A. St. Clair, South Euclid, Ohio, assignor to The Weatherhead Co., Cleveland.



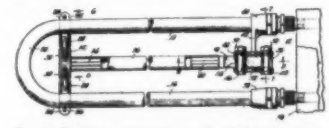
A valve adapted to regulate compressible fluids under pressure comprised of a valve body formed with a bore subject to fluid pressure and a valve seat, a valve cap member which, in cooperation with said body, forms a chamber, a movable valve member within said chamber having a resilient valve seat arranged to engage said seat, and a spring extending between said cap member and said movable member biasing said movable member formed with a stop for engaging said body preventing said seal from assuming the entire force of said spring, said sealing member formed with an imperforate base adapted to engage said movable member, a substantially annular side wall, a flange extending inwardly from the open end of said side wall adapted to engage said seat, and a plurality of spaced lands extending from said flange to said base, said lands adapted to resist tension forces tending to move said flange away from said base, the portions between said lands providing unbalanced areas adapted to urge said flange toward said seat.

2,683,466. CUFF FOR FLEXIBLE TUBING. Wesley L. Gules, Guilford, Conn., assignor to The Flexible Tubing Corp., Guilford, Conn., a corporation of Connecticut. Application Feb. 14, 1952, Serial No. 271,539. 5 Claims. (Cl. 138-25.)



1. The assembly with a length of flexible tubing having a body of pliable sheet material supported in open tubular form by a wire helix, of a short unsupported tubular cuff, said assembly comprising a cuff inner ply in the form of a strip of pliable sheet material formed into a cylinder of essentially the same outside diameter as said tubing and abutting the end of said tubing, a cuff outer ply in the form of a strip of pliable sheet material tightly surrounding both said cuff inner ply and the abutting end portion of the tubing, said cuff outer ply being adhesively bonded to both the cuff inner ply and the end portion of the tubing, and a wrapping of cord applied tightly about said cuff outer ply where it overlies the end portion of said tubing, said cord wrapping being laid on helically between the turns of the supporting wire helix.

2,683,468. HOSE SUPPORT. George H. Ikert, Elgin, Ill., assignor to Chicago Metal Hose Corp., Maywood, Ill., a corporation of Illinois. Application March 4, 1948, Serial No. 12,979. 7 Claims. (Cl. 138-61.)

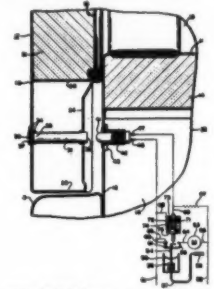


1. A hose support comprising a support bracket, a support arm adapted for connection at one end to a hose length to be supported, and means connecting the other end of said arm to the bracket, said means comprising a pair of spaced abutments mounted on said support, said arm extending between said abutments and in engagement therewith, and a pair of opposed cam surfaces on said arm in con-

stant engagement with said abutments, said abutments and cam surfaces supporting said arm for pivotal and controlled longitudinal shifting movement.

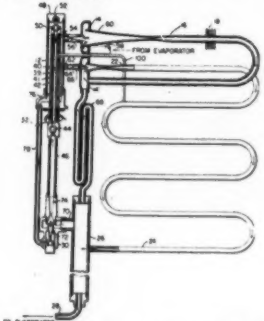
Week of July 20

2,683,970. INDICATOR FOR REFRIGERATING APPARATUS. James W. Jacobs, Dayton, Ohio, assignor to General Motors Corp., Dayton, Ohio.



1. In combination, a refrigerator cabinet having inner and outer walls with insulating material disposed therebetween forming a food storage compartment provided with a forwardly facing access opening, a door hingedly mounted at the front of said cabinet for normally closing said compartment access opening, the top and side edges of said door being substantially flush with the top and side walls of said cabinet and concealing portions of the front cabinet wall adjacent said compartment access opening, the outer cabinet walls being extended downwardly beyond the bottom insulated walls of said food compartment to form a machine compartment therebelow, a closed refrigerating system associated with said cabinet including a refrigerant translating device located in said machine compartment and a refrigerant evaporator for cooling the interior of said food storage compartment, a signal lamp mounted in an aperture provided in the front wall of said machine compartment below the bottom insulated wall of said food compartment, a switch for starting and stopping said refrigerant translating device in response to temperatures in said food compartment, an electric circuit for said lamp and said switch, said door having its lower part depending below the insulated bottom wall of said food compartment and overlying said lamp in the aperture of said machine compartment front wall, said overlying part of said door normally concealing said lamp from view, light ray transmitting means carried by said depending part of said door and movable therewith, and said means being in alignment with and exposed to light emitted from said lamp when said door is closed to transmit the light through the door whereby the same is visible at the front of said cabinet.

2,683,971. JET PUMP REFRIGERATION SYSTEM. Ernest P. Neumann and Ferdinand Lustwerk, Lincoln, Mass., assignors to Ultrasonic Corp., Cambridge, Mass., a corporation of Massachusetts. Application Oct. 21, 1952, Serial No. 315,888. 6 Claims. (Cl. 62-117.65.)



6. Apparatus of the class described, comprising a boiler having an inlet for liquid and an exhaust passage for vapor, pressure responsive check valves controlling the inlet and the exhaust passage, a pair of jet pumps connected in parallel to said exhaust passage, a condenser connected to said jet pumps, a capillary connected between said condenser and said boiler, a tank connected to said condenser, an injector connected to said exhaust passage and to said tank, and walls forming a chamber interconnecting said injector and said boiler inlet.

(To Be Continued)

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11-22-54

Refrigeration Problems

and their solution

by Paul Reed

For Service and Installation Engineers



Paul Reed

Ammonia as Refrigerant (2)

In discussing ammonia, we have frequently compared it to the fluorinated hydrocarbons, such as "Freon-12," "Freon-22," "Genetron-12," "Genetron-141," etc. Our purpose in doing this was not to show any advantages or disadvantages of ammonia in comparison with these refrigerants. All of the refrigerants mentioned, including ammonia, are excellent refrigerants; their selection depending upon the type of application and equipment with which they may be used.

As mentioned in the beginning of the previous instalment, most of our readers are more familiar with the above refrigerants than with ammonia, so a discussion of ammonia is simplified by comparing it with refrigerants with which most of our readers are more familiar and with which they have had the most experience.

Although refrigeration equipment and its applications are becoming more and more highly specialized, and the need for refrigeration men to specialize is becoming increasingly evident, yet this specialization is less on a basis of the refrigerant used than on the application and the equipment to handle that application.

More and more, the ammonia people are adopting other refrigerants for applications for which ammonia is less suitable or prohibited by codes. It is fitting that those who have had little experience with ammonia should become more familiar with it, and with some of the practices in the ammonia field. Independent service engineers sometimes find themselves rather unexpectedly called upon to install or service ammonia equipment.

HIGH COMPRESSION RATIO

For the same evaporator temperature, the evaporator pressure (and consequently the suction pressure) of ammonia is about halfway between "Freon-12" and "Freon-22"; but for the same condensing temperature, the condensing pressure (or "head" pressure) of ammonia is much higher than that of "Freon-12," and roughly about the same as that of "Freon-22."

Therefore, the ratio of compression for ammonia (condensing pressure divided by the evaporator pressure, both expressed in pounds

per square inch absolute), is higher than for "Freon-12" or "Freon-22." Also, it is higher than for methyl chloride, but lower than for sulphur dioxide and the other "Freons."

A high ratio of compression for a refrigerant tends to increase cylinder re-expansion and other compressor losses, and is generally avoided in ultra-low temperature applications.

Ammonia freezes at -107.9° F., so its use in ultra-low applications is limited to temperatures above this freezing point. Ammonia is not extensively used in ultra-low temperature work.

SUCTION PRESSURE SUITABLE FOR MEDIUM TEMPERATURES

Ammonia's boiling temperature at atmospheric pressure (zero gauge) is -28° F. (same as Carrene-7) which makes it quite suitable for ice-plants, cold storage warehouses, breweries, and the many smaller applications involving temperatures of about -15° and above.

Most of these applications operate at suction pressure of from zero gauge to 40 p.s.i.g., which are sufficient to minimize entrance of air and moisture to the system, but not high enough to aggravate leakage at the stuffing box or to require heavy construction of the low side.

Nevertheless, most low sides have been formed of 1 1/4-in. iron pipe, although in late years, forced convection, blower type unit coolers have come into common use in the smaller installations. In general, a "small" ammonia system is one of 50 or 75 tons or less, which is considered a large system in the commercial field in which the halogenated hydrocarbon refrigerants—"Freon," "Genetron," methyl chloride, etc., are most common.

On a large ammonia system, used in an ice plant or cold storage warehouse, one or more of the compressors are always in operation, and the suction pressure is maintained approximately the same—usually at about 20 p.s.i.g. corresponding to an evaporator temperature of 5°.

Different room temperatures down to slightly below freezing are maintained by varying the amount of coil area in the rooms, by shutting off the room periodically either manually or with thermostatically controlled valves, or by the use of pressure regulating valves.

In these plants, low temperatures for processing or storage of

frozen foods, ice cream, etc., are obtained by using separate, smaller systems or by means of a "booster" compressor. The suction side of this booster compressor is connected to the low temperature evaporator, and its discharge is into the suction line of the large, main system, preferably through an intercooler to remove the heat of compression. Such an arrangement forms, in effect, a two-stage system of the compound compression type.

CONDENSING TEMPERATURES AND PRESSURES

Except carbon dioxide (CO₂) and the high pressure refrigerants used in the low stage of the cascade type of two and three-stage systems for ultra-low temperatures, all of the commonly used refrigerants have critical temperatures above 200° F., so we do not have to be concerned about the characteristic. Even with air-cooled condensers, a refrigerating system should never be called upon to operate at condensing temperatures above 150°, and that rarely.

However, for the same evaporator and condensing temperatures, and other conditions such as suction line superheating, the discharge temperature of the gas from the compressor is higher for ammonia than for any of the other common refrigerants.

In order to eliminate the effect of suction gas superheat as a factor in the temperature of the hot gas discharge, and to increase compressor efficiency and capacity, it was formerly a common practice to run the suction gas "wet" to the compressor. This practice is much less common now, as it is difficult to prevent compressor damage due to "slugging" and lack of cylinder lubrication.

High condensing temperatures are to be avoided, if possible, on any refrigerating system, whatever the refrigerant used, and this particularly applies to ammonia systems. High condensing temperatures (with accompanying high head pressures) increase the temperature of the hot gas discharged from the compressor.

Excessive discharge temperatures may result in oil breakdown and formation of sludges. They may also cause breakdown of the ammonia itself and cause "foul gases" (non-condensibles) in the system.

Except in a very few small applications, ammonia systems are rarely air cooled. Systems using ammonia as the refrigerant are usually of large tonnage, so there is little or no reason to use air-cooled condensers. In the first place, the original cost of air-cooled condensers and the space required for them, would both be excessive. So ammonia systems are, almost without exception, water cooled.

Since most ammonia systems are quite large, the amount of cooling water to the water-cooled condensers is correspondingly large. Re-use of the cooling water is the rule, except in some locations

where cool well water is available. Even then the pumping costs are apt to be excessive unless the wells are not very deep and the electric rate is low.

The warm water from the condensers (usually shell-and-tube or double pipe), is cooled in cooling towers or spray ponds, and pumped back to the condensers.

The water leaving a well-designed cooling tower or spray pond can be kept within 10° to 12° of the wet-bulb temperature of the air. There are very few locations or times in the United States when the design wet bulb is above 78° F., so cooling water to the condensers is not often above 90° F., and usually much lower. Thus, condensing temperatures are usually under 95°, and head pressures are usually under 185 p.s.i.g.

(To Be Continued)



Jack Berry



K. A. Bergquist

Bergquist Is Sales Mgr., Berry Representative For Fine Products Co.

CHICAGO — Appointments of Karl A. Bergquist as sales manager of the Fine Products Co. and of Jack Berry to succeed him as district sales representative in Michigan, Ohio, Indiana, and Kentucky were announced recently by A. H. Fine, president.

Bergquist will make his headquarters in Chicago.

Berry has been manager of two large wholesale refrigeration parts jobbers in the Louisville area and has been production and sales engineer for Prest-O-Lite Co., Inc. of Indianapolis.

To Condition New S.C. Store

WAGNER, S. C. — The Tyler Brothers Department Store here, destroyed by fire March 30, soon will occupy a new building completely air conditioned.

Latin American Bldg. Gets Chilled Water Air Conditioning System

HARRISON, N. J. — What is described as the first chilled water air conditioning system to be installed in Latin America has recently been completed in the Andian National Corp. building in Cartagena, Colombia—a seven-story structure which was built years before the current trend toward air conditioning.

Installation of the chilled water system built by Worthington Corp. was accomplished without disturbing the offices.

Worthington's Colombia distributor, Glottman, S. A. of Bogota, installed three separate units, each fully integrated; each one to handle the cooling of two floors (the ground floor not being included in the cooling system).

Three 30-hp. liquid chilling units were designed for the installation at the Worthington plant, Harrison, N. J., and shipped in separate packages ready for immediate installation. Each of these packages contained a compressor, an evaporative condenser, and a direct expansion water chiller. The refrigerant used is "Freon-22."



- ◆ Extra-large storage
- ◆ Safety from freeze-up
- ◆ Fast hourly recovery
- ◆ 20-year life construction

Capacities: 5 to 500 g.p.h.
Storage: 2 to 240 gals.

Water coolers for all uses factory-packaged with your condensing unit. Write for literature.

FILTRINE MFG. COMPANY
53 LEXINGTON AVE. • B'KLYN 36, N. Y.

CLASSIFIED ADVERTISING

RATES for "Positions Wanted" \$7.50 per insertion. Limit 50 words. 15¢ per word over 50.

RATES for all other classifications \$10.00 per insertion. Limit 50 words. 20¢ per word over 50.

ADVERTISEMENTS set in usual classified style. Box addresses count as five words, other address by actual word count. Please send payment with order.

POSITIONS WANTED

MANUFACTURERS' REPRESENTATIVE (a former vice-president of nationally known manufacturer-distributor) now operating in eastern seaboard states, wants additional non-competitive lines of unitary equipment to go along with electrical heating and air conditioning. Have sales organization and New York Office, and can enlarge both. BOX A5098, Air Conditioning & Refrigeration News.

A FIELD representative for an air conditioning manufacturer has lost his job in a reorganization of his employer's sales which eliminates salaried and full-time representation. Now looking for a job in factory sales in which college education and twenty-eight years' experience as salesman, branch manager and district sales manager are essential qualifications. Only three previous employers, and 15 years with one, will indicate stability, character and ability. An excellent sales record will be submitted for investigation. Fully experienced in packaged air conditioners, commercial refrigeration and major electrical appliances. Proven ability to franchise a distributor or dealer organization and to assist them in training their salesmen. Single and free to travel or locate anywhere with the south or southwest preferred. Available now. Address BOX A5099, Air Conditioning & Refrigeration News.

POSITIONS AVAILABLE

WANTED SALESMAN currently calling on refrigeration and air conditioning contractors to handle a line of quality water cooling towers directly from the manufacturer. Commission basis. RED-CLIFF COMPANY, 1920 North Clybourn, Chicago 14, Illinois.

WANTED—MANUFACTURERS' representatives now contacting commercial refrigeration dealers in the following territories: Chicago, Atlanta, Detroit & Florida. Must be able to sell quality equipment; fast-growing line of special commercial refrigeration items of interest to established refrigeration dealers. Replies confidential. Write: Paul R. Stewart, C. SCHMIDT COMPANY, 1712 John Street, Cincinnati 14, Ohio.

WANTED—MANUFACTURER'S representative. National manufacturer of complete line of air conditioning equipment, including room air conditioners, residential and commercial units in both water and air cooled, has several territories open on commission. Give experience, lines carried and type of accounts now being called on. BOX A5087, Air Conditioning & Refrigeration News.

REFRIGERATION & air conditioning engineer with sales experience. Substantial base pay plus percentage. In southwestern part of U. S. Give references and full particulars. Our employees know of this ad. BOX A5097, Air Conditioning & Refrigeration News.

EQUIPMENT FOR SALE

FOR SALE: Brand new popular brand 1/2 HP compressor with flywheel and service valves, \$52.50—Model F 1 HP \$62.50. Price includes free transportation to destination. Send for parts catalog listing other money saving values. WALTER W. STARR, 2833 Lincoln Avenue, Chicago 13, Illinois.

BUSINESS OPPORTUNITIES

FOR LEASE—Commercial refrigeration and air conditioning business. Midwest city with 125,000 population. Frigidaire and C. V. Hill distributorships. Will lease business and building established twenty (20) years, for percentage of sales. Will require minimum of \$13,000 cash outlay for parts, inventory, tools and vehicles. In replying state qualifications, background, etc. Replies kept confidential. Reply BOX A5096, Air Conditioning & Refrigeration News.

BUSINESS IS GOOD

... at Amana. Due to constantly increasing demand for Amana Food Freezers and Room Air Conditioners we are expanding our Sales Department.

There are several excellent permanent positions for men who can qualify. This is an unusual opportunity to become associated with a company which is "going places." You'll like our organization, and the working conditions. Additional men are required for:

ROOM AIR CONDITIONERS

Factory representatives specializing in Room Air Conditioners; experience in this field required.

FOOD FREEZERS

Openings for factory representatives calling primarily on distributors, department stores, and large accounts.

All replies will be treated in strictest confidence. Please write, giving age, full resume of experience, and enclosing a recent photograph.

Apply to Sales Department.

AMANA REFRIGERATION, INC., AMANA, IOWA

MARSH Instruments

THE SERVICEMAN LINE of Testing Gauges, Testing Thermometers, Timers, etc.

PRESSURE GAUGES and Dial Thermometers for all services.

MARSH-ELECTRIMATIC, Water Regulating Valves, Solenoid Valves.

MARSH INSTRUMENT COMPANY
Sales Affiliate of Jos. P. Marsh Corporation
Dept. D., Skokie, Ill.

Program for ASRE Meeting--

(Concluded from Page 1, Col. 5)

trate on service, particularly of the hermetic system. A member of the Refrigeration Service Engineers Society will present the serviceman's viewpoint.

The Tuesday afternoon forums will be informal, with no recorded discussions, giving the participants a chance to "let their hair down." A list of topics covered are given in the program below.

At the same time the Research Program Development Symposium will go into the whole subject of research by ASRE from the need for such a program to what projects the society should sponsor and for how long.

On Wednesday morning, an air conditioner conference will hear a report on the air conditioned village at Austin, Texas and discuss problems involved in the field of residential air conditioning.

That afternoon a desiccants conference will give short presentations on desiccants and driers; what the manufacturer demands of a drier; and the application of driers.

Details of the technical sessions are included in the program below.

Another feature of the meeting will be a technical research exhibit consisting of some 20 non-commercial displays of important research developments leading to the advancement of the refrigeration art.

A display of photo-montage views of old refrigerating equipment dating before 1930 along side modern replacing units will point up the advances made in the industry since ASRE was organized.

A 50th anniversary luncheon will be held at Monday noon. Then a time capsule containing microfilms of the charters of the 35 ASRE sections and a letter from ASRE President A. J. Hess extending congratulations to his successor will be presented to the Franklin Institute for opening in December, 2004 at the 100th anniversary meeting of the society.

Other entertainment planned includes a party Monday evening featuring an ice show and the traditional cocktail party and dinner dance on Tuesday evening.

The detailed technical program follows:

MONDAY A.M., NOV. 29

Educational Engineering Conference, F. J. Reed, chairman.
Water Conservation Conference, R. M. Westcott, chairman.

MONDAY P.M., NOV. 29

First Technical Session, F. P. Neff, chairman.
"Evolution of the Self-Contained Ice Maker, 1854-1954." Glenn Muffy, consulting engineer.

"Increasing Refrigerated Storage Life of Fresh Foods by Gamma Irradiation." Dr. L. E. Brownell, University of Michigan.

"How the Electrical Properties of 'Freon' Compounds Affect Insulation in the Hermetic System." Dr. B. J. Eiseman, Kinetic Chemicals Div., E. I. DuPont de Nemours and Co., Inc.

TUESDAY A.M., NOV. 30

Domestic Engineering Conference, E. T. Morton, chairman.
Second Technical Session, E. P. Palmatier, chairman.

"Heat Transfer Coefficients in Horizontal Tube Evaporators." Profs. W. L. Bryan and L. G. Seigal, Case university.

"Results of National Bureau of Standards Field Investigation of Drinking Water Cooler Usage." Paul R. Achenbach, National Bureau of Standards.

"Vapor Pressure of Water Solutions of Lithium Bromide." Dr. W. A. Pennington, chief chemist and metallurgist, Carrier Corp.

TUESDAY P.M., NOV. 30

Research Program Development Symposium.

Forums, Justin Neuhoof, chairman.

a. Problems Involved in the Storage of Frozen Foods.

b. Thermodynamics of Lithium Bromide Water Solution for Absorption Systems.

c. What Properties Should a Refrigerant Have to Meet Industry's Needs?

d. Moisture and Non-Condensibles in Refrigeration Systems.

e. Centrifugal Compression of Refrigerants.

f. Oil Circulation on Refrigeration Systems.

g. Problems Encountered with Air Conditioning Load Calculations.

WEDNESDAY A.M., DEC. 1

Air Conditioner Conference, Herbert L. Laube, chairman.

Third Technical Session, F. Y. Carter, chairman.

"The 'Hydrophobic' Behavior of Certain Desiccants." Dr. W. O. Walker, University of Miami.

"In-Place Test Studies of Insulated Structures." Edward Simons, consulting engineer.

"Discussion of Problems Involved in the Prevention of Ice Formation on and the Removal of Ice from Metal Surfaces." Profs. W. L. Sibbitt and W. E. Fontaine, Purdue university.

WEDNESDAY P.M., DEC. 1

Desiccants Conference, Dr. W. O. Walker, chairman.

Fourth Technical Session, John Engalitcheff, chairman.

"A New Approach to Refrigeration Coil Calculations." W. A. Spofford, General Electric Co.

"Automatic Instrumentation for Compressor Testing." S. Misemer and J. A. Papapanu, Carrier Corp.

"Cryogenics." A. Pastuhov, Arthur D. Little, Inc.

Refrigerator of Future--

(Concluded from Page 1, Col. 3)

ample, the salad refrigerator—it will be a small drawer-like compartment—will be near the sink. The meat refrigerator will be near the stove.

"Instead of the traditional ranges, cooking elements will be built into wall recesses or work surfaces where they're most convenient.

"By then you'll see double-faced refrigerators which can be opened from either the kitchen or the dining room side. A built-in heating unit will keep foods warm on the dining table."

Donald Dailey, vice president of product planning for Servel, Inc., and Arthur N. Beevar, manager of product planning and appearance design for the major appliance division of General Electric Co., both indicated that their firms were working on wall-mounted refrigerators. But they wouldn't say when they would be put on the market.

Beevar said that General Electric's unit would be a sliding door refrigerator built horizontally into the wall at about eye level. A newly-developed General Electric insulation would permit 9 cu. ft. of freezer storage and an equal amount of normal temperature storage space in the same space now occupied by an 8-cu. ft. refrigerator.

Another General Electric project, it was reported, is a compressor unit under the sink to furnish ice cold water at the kitchen tap and to make ice cubes.

Dailey asked his audience to "imagine a kitchen with a freezer of pre-cooked packaged dinners planned from professional menus. At meal time, all the housewife would have to do is press a button and the package would drop into a thawing and heating chamber. In a few minutes it would be ready for serving.

"It doesn't make any sense for a housewife to take six different items out of a freezer and put them into six separate pots when it all could be done for her."



G-E UNIT MAY PROJECT into room or mount flush with the wall.



G-E Room Cooler--

(Concluded from Page 1, Col. 2)

208, and 230-volt models, and in 1-hp. 208 and 230-volt models.

"These units can be installed flush with the inside wall or project into the room," G-E said. "In any position the unit does not interfere with the movement of draperies or Venetian blinds.

"Cooling capacity is not lowered in any way by the flush position. If the projecting position is preferred, the flat top of the unit, may be used for vases and other items."

Fine furniture appearance is stressed throughout the line.

"Most models are available in

new blond cabinet finish for use in modern room settings," the company stated. "More traditional mahogany wood grain finish is available in all models. A decorative panel covers the two simple control knobs at the base of the cabinet front.

"Two-tone finish is utilized on the exterior weatherhood beyond the outside wall with light grey predominating to blend well with exterior decoration. This two-tone combination also de-emphasizes outside projection of the unit."

G-E said the three rotator air directors provide a highly flexible and draft-free air direction. Located behind the front grille, the three directors adjust independently."

"Quieter operation than ever before has been achieved with no sacrifice of high cooling capacity," the company declared. "Design improvement of component parts, close attention to detail in rubber and spring mountings, and the use of noise absorbent plastic result in almost noiseless operation."

The G-E filter is permanent and needs no replacing or special outside servicing. It can be easily removed by the owner and cleaned with warm water. The filter brings about a reduction of dust, dirt, and pollen in all recirculated and fresh air passing through the unit.

"All-weather" units, which heat as well as cool, are available in the ¾ hp. and 1-hp. 230-volt models.

"A reverse flow of refrigerant extracts heat from the outside air, providing efficient heating at less expense than with resistance heating elements," G-E said.

"However, since the room air conditioner's reverse cycle is effective only when outside air is above 40° F., General Electric has added a resistance heating element that turns on automatically when outside air temperature drops below that point."

The company added: "All 1955 models offer HPF, which means greater cooling ability at less operating cost. For example, the new 1955 ½-hp. model uses 15% less electrical current. Moreover, it can be plugged into any standard outlet, thus eliminating additional wiring."

*This message first appeared in January 1952
We consider it just as important today*

WHAT'S A WHOLESALER?

At the end of every production line rises the greatest single responsibility of business—the profitable distribution of a product. So important is this responsibility that men all over the world dedicate their minds, money, voices, hands, eyes, ears, noses, nerves, and sometimes their very lives to its fulfillment.

As a group these men are termed "Salesmen," "Representatives," "Agents" and "Reps." They are called other things frequently.

So intent are they on marketing their products successfully, and so dire are the consequences if they don't, that they solicit the help of one of the most singularly important influences in the distribution cycle—the wholesaler.

The wholesaler has been known as a "Jobber," "Distributor," "Dealer" and smiles more often when called a wholesaler than by any other name.

He is linked to reputable manufacturers by supply, to their salesmen by merchandising, to his family by love, his employees by loyalty and to his customers by outstanding service and friendship.

He places more orders, receives more merchandise in greater variety, stocks and restocks more shelves, makes more shipments in less time, holds more confidences and credit across longer counters with a larger capital investment in a smaller area than does either his suppliers or his customers.

Every day he dispenses more information on a wider variety of products than is provided in the literature furnished him. It is taken from years of experience and is added to the knowledge of the craftsmen who are his customers.

The wholesaler can be counted among the members of leading associations, civic groups, fraternal orders, religious societies, country clubs and bowling leagues. His divergent interests compel him to be up early and out late. His favorite but rare relaxations are found at home, on vacation, with a fishing rod or behind a bird dog; at a card table and over a cup of coffee with Joe around the corner.

The wholesaler is not typically a small businessman, neither is he a tycoon; rather he is a well established, highly regarded commercial institution; sincere, practical, reliable; and on his shoulders rests the production lines of tomorrow—profitable distribution today.

**BUY FROM YOUR
WHOLESALE**

WOLVERINE TUBE, Division of Calumet & Hecla, Inc., Manufacturers of Quality-Controlled Tubing and Extruded Aluminum Shapes, 1413 Central Avenue, Detroit 9, Michigan. Plants in Detroit, Michigan and Decatur, Alabama.